

Technical Report # 1101

**easyCBM[®] Reading Criterion Related Validity Evidence:
Washington State Test 2009-2010**

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Abstract

easyCBM[®] is an online benchmark and progress monitoring assessment system designed for use within a response to intervention (RTI) framework. Part of the purpose of easyCBM[®] is to help educators identify students who may be at risk for academic failure. Often, students deemed at-risk are those who would be predicted to not pass the state test. Previous research has shown that educators using easyCBM[®] may classify students as at-risk or not for passing the Oregon state test with a high degree of accuracy. In this technical report, we report on an extension of this research, examining the relation between easyCBM[®] and the test used for accountability in Washington state. We conduct regression and correlation analyses to examine the relation between the measures, and use scatterplots to illustrate this relation with respect to cut scores.

easyCBM® Criterion-Related Validity Evidence: Washington State Test

In this technical report, we present the results of a study of the criterion validity of easyCBM® reading at grades 3-8. The Measures of Student Progress (MSP), Washington's state test used for accountability purposes, was used as the criterion. The MSP was administered at the end of the school year, while easyCBM® was administered tri-annually. Thus, we examine easyCBM® for both predictive validity evidence, with the fall and winter measures predicting the MSP, and for concurrent validity evidence, with the relation between the spring measure and MSP examined.

The easyCBM® Progress Monitoring Assessments

The online easyCBM® progress monitoring assessment system was launched in September 2006 as part of a Model Demonstration Center on Progress Monitoring funded by the Office of Special Education Programs (OSEP). At the time this technical report was published, 92,925 teachers had registered easyCBM® accounts, representing schools and Districts spread across every state in the country. During the 2008-2009 school year, an average of 305 new accounts were registered each week, and the popularity of the system continues to grow. In the month of October 2010, alone, 11,885 new teachers registered for accounts. The online assessment system provides both universal screener assessments for fall, winter, and spring administration and multiple alternate forms of a variety of progress monitoring measures designed for use in K-8 school settings. By design, alternate forms of the measures within a grade level are of comparable difficulty, whether they are deployed as progress monitoring or benchmarking assessments. Thus, although data for the analyses reported here were gathered specifically from the benchmark assessment forms, the findings should apply equally to the progress monitoring forms. Because the MSP is not administered prior to grade 3, we limit our

analyses in this technical report to the easyCBM® measures available for use in grades 3 through 8. In reading, these constructs include reading comprehension, oral reading fluency, and vocabulary.

As part of state funding for Response to Intervention (RTI), states need technically adequate measures for monitoring progress. Given the increasing popularity of the easyCBM® online assessment system, it is imperative that a thorough analysis of the measures' technical adequacy be conducted and the results shared with research and practitioner communities. This technical report addresses that need directly, providing the results of a study examining the predictive and concurrent validity evidence supporting the use of the easyCBM® assessments in reading in Washington state schools.

Methods

This study was conducted in the fall of 2010 using data provided by two public school districts from Washington state.

Setting and Subjects

The two public school districts that participated in this study were both located in the western half of Washington state. Data came from a convenience sample of students in each district who participated in the districts' benchmarking assessments in the fall of 2009 and the winter and spring of 2010. All analyses were conducted by grade level. Descriptive and correlation analyses were conducted both with the full sample and by District while the regression analyses were conducted only with the full sample to ensure a sufficient number of students to provide adequate statistical power.

Measures

In this section we first describe the easyCBM® reading measures and then provide

information about the Washington state test of reading. Additional information related to the test-retest and alternate form reliability of the easyCBM® reading assessments can be found in Alonzo and Tindal (2009).

Multiple Choice Reading Comprehension

The easyCBM® assessment system includes measures of reading comprehension (MCRC). Each MCRC measure consists of a 1,500 word original work of narrative fiction followed by 20 multiple-choice questions. Of the questions, 7 sample students' literal comprehension, 7 sample their inferential comprehension, and the final 6 sample their evaluative comprehension. Each question consists of a question stem followed by three possible answer choices: one correct, one intended as a near-distractor, and one intended as a far-distractor. The MCRC measures are designed to be group administered by computer, with automatic recording and scoring of student responses. Students score one point for every question answered correctly, for a total possible score of 20 points. Complete description of the development of the MCRC measures can be found in published technical reports (Alonzo, Liu, & Tindal, 2008; Alonzo & Tindal, 2008b).

Oral Reading Fluency

The easyCBM® assessment system includes two different measures of oral reading fluency: a word reading fluency (WRF) measure and a passage reading fluency (PRF) measure in grade 3. Beginning in grade 4 and extending through grade 8, only the PRF measure is available. Both measures of oral reading fluency are designed for individual one-on-one administration. The WRF consists of a chart of words, both decodable and irregular, presented on a single piece of paper. Test administrators have students read from this chart of words, moving from left to right and from the top to the bottom of the page, while they follow along on their own copy of

the assessment on which they mark every word read incorrectly. Students are given 60 seconds in which to read from the chart of words. Words students fail to read or read incorrectly are counted as errors. The final score, number of words read correctly per minute, is recorded in the easyCBM® assessment system. Complete description of the development of the WRF measures can be found in Alonzo and Tindal (2007).

The PRF measure consists of an original work of narrative fiction presented to students on a single sheet of paper. The PRF measures vary in length from 250 words (for younger grades) to 380 words (in middle school). As with the WRF measure, test administrators have students read from their copy of the measure, moving from left to right and from the top to the bottom of the page, while test administrators follow along on their own copy of the assessment on which they mark every word read incorrectly. Students are given 60 seconds in which to read. Words students fail to read or read incorrectly are counted as errors. The final score, number of words read correctly per minute, is recorded in the easyCBM® assessment system. Complete description of the development of the PRF measures can be found in Alonzo, Park, and Tindal (2008), Alonzo and Tindal (2008a), and Alonzo and Tindal (2007).

Vocabulary

The easyCBM® assessment system includes a measure of vocabulary for use as part of the fall and spring benchmark assessments. The measure consists of 25 multiple-choice questions. Each question consists of a question stem followed by three possible answer choices: one correct, one intended as a near-distractor, and one intended as a far-distractor. The vocabulary measures are designed to be group administered by computer, with automatic recording and scoring of student responses. Students score one point for every question correctly answered, for a possible score of 25 points. Complete description of the development of the

vocabulary measures can be found in Alonzo and Tindal (2004).

The MSP

The MSP was newly implemented for the 2009-2010 school year. Previously, Washington had administered the Washington Assessment of Student Learning, a longer test that was limited to paper pencil format. According to the Washington Department of Education, the MSP will eventually be a computer administered assessment; however, because this was the first year the assessment was administered, only about 25% of students in grades 6-8 were administered the assessment by computer. The state plans to move to a fully computer administered test within 2-3 years. The MSP includes multiple-choice and short answer item types.

Data Analysis

To examine the predictive and concurrent validity of easyCBM[®], we conducted regression and correlation analyses. Numerous regression models were tested at each grade level. First, a full model was run, which included all easyCBM[®] assessments administered throughout the year within a given grade. This model provided an indication of the total relation between easyCBM[®] and the MSP. Second, individual models were tested for each measure during each seasonal administration. Third, seasonal models were tested with each measure administered during a particular season. At grade three, a measure of word reading fluency was included in the full model. A subsequent “full model minus word reading fluency” model was then tested because while data were available for students in grade 3, the word reading fluency measure is typically only administered in grades K-2. Thus, while the measure was included in grade three as a test variable, it was not a primary variable of interest. The full model could not be computed at grades six and eight due to an insufficient number of students with full data across the

variables. At grade 8, the fall seasonal model could similarly not be computed.

Correlations are reported for both the full model and the individual models, by District and by the full samples. To visually represent the relation between easyCBM[®] and the MSP, and to examine the impact of cut scores, we also produced scatterplots for each measure during each seasonal administration with the full sample. On each scatterplot, students' MSP scores are plotted along the y-axis and their easyCBM[®] scores are plotted along the x-axis. The vertical lines on each plot represent the 20th and 50th percentiles of normative achievement on easyCBM[®], while the horizontal line represents the cut score for the *meets standards expectations* performance level on the MSP.

Results

Descriptive statistics and correlations are reported for District 1 on pp. 15-20 and District 2 on pp. 21-32. Descriptive statistics and the results of the regression analyses are reported for the full sample by grade on pp. 33-178. Scatterplots for the full sample are reported by grade and measure on pp. 179-224. Overall, the full model accounted for between 53% and 62% of the variance in MSP scores.

At grade 3, the full model including WRF accounted for 60% of the total variance in MSP scores. Removing the measure of WRF decreased the overall variance accounted for by 1%, with the overall model accounting for 59% of the variance in MSP scores. In both models, the fall vocabulary measure was the largest predictor, uniquely accounting for 2.3% of the total variance in the model including the measure of WRF, and 2.4% of the total variance without the WRF measure. The fall and winter seasonal models, examined for predictive validity evidence, accounted for 52% and 44% of the total variance in MSP scores respectively. The spring model, examined for concurrent validity evidence, accounted for 54% of the variance in MSP scores.

At grade 4, the full model accounted for 56% of the total variance in MSP scores. The winter MCRC measure was the largest predictor, uniquely accounting for 6.7% of the total variance. The fall and winter models, examined for predictive validity evidence, each accounted for 34% of the variance in MSP scores. The spring model, examined for concurrent validity evidence, accounted for 46% of the variance in MSP scores.

At grade 5, the full model accounted for 62% of the total variance in MSP scores. The fall vocabulary measure was the largest predictor in the model, uniquely accounting for 1.6% of the total variance. The fall and winter models, examined for predictive validity evidence, accounted for 59% and 51% of the variance in MSP scores respectively. The spring model, examined for concurrent validity evidence, accounted for 55% of the variance in MSP scores.

At grade 6, the fall and winter models, examined for predictive validity evidence, accounted for 44% and 33% of the variance in MSP scores respectively. The spring model, examined for concurrent validity evidence, accounted for 57% of the variance in MSP scores. However, these results should be viewed with caution, as data from only 57 students were included in these analyses.

At grade 7, the full model accounted for 53% of the total variance in MSP scores. The spring vocabulary measure was the largest predictor in the model, uniquely accounting for 3.0% of the total variance. The fall and winter models, examined for predictive validity evidence, accounted for 52% and 33% of the variance in MSP scores respectively. The spring model, examined for concurrent validity evidence, accounted for 45% of the variance in MSP scores.

At grade 8, the winter model, examined for predictive validity evidence, accounted for 50% of the variance in MSP scores respectively. The spring model, examined for concurrent validity evidence, accounted for 73% of the variance in MSP scores. However, with data from

only 12 students included in the spring model, these results should be viewed with extreme caution.

Discussion

The results of this study suggest a strong relation between the easyCBM[®] reading measures and the MSP. An investigation of the scatterplots indicates that, even early in the year, very few students who scored below the 20th percentile on easyCBM[®] reached the *proficiency* performance level classification on the MSP. Above the 50th percentile, however, most students did reach the *proficiency* performance level classification, although overall it appears that easyCBM[®] is less accurate in predicting which students *will* reach proficiency than in predicting which students *will not* reach proficiency.

These findings add to the evidence that the easyCBM[®] reading measures are predictive of state large-scale assessments of reading, replicating findings reported from Oregon (Sáez et al., 2010) in earlier technical reports.

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Table 1

Demographics

District 1												
Grade	n	% ELL	% FRL	% SPED	% Female	% Ethnicity						
						Amer Ind	Asian/Pac Islander	Black	Hispanic	White	Multi	Decline/ Missing
3	1023	3.1	45.2	12.7	48.5	2.8	10.9	5.2	8.7	57.9	11.9	2.5
4	993	2.9	43.1	11.7	48.8	2.1	9.4	5.5	9.4	57.5	13.9	2.2
5	1000	2.9	39.7	15.1	42.6	1.9	10.8	5.3	7.8	57.3	14.7	2.2
6	940	2.1	40.1	11.6	49.1	3.2	10.0	5.5	8.9	59.0	10.9	2.4
7	982	2.0	38.9	13.1	48.8	2.3	10.3	9.0	9.6	58.5	6.2	4.2
8	1107	2.3	34.3	10.3	41.9	3.0	13.6	9.8	11.1	60.7	1.0	0.8
District 2												
3	271	12.2	-	13.7	47.2	5.5	4.1	1.1	24.0	61.3	2.6	1.5
4	262	8.4	-	18.7	48.5	4.2	2.7	0.4	22.9	67.6	2.3	-
5	258	6.2	-	21.3	57.8	7.8	3.5	1.2	20.9	65.5	0.4	0.8
6	245	4.9	-	7.8	49.0	5.3	1.6	1.6	18.4	70.2	2.4	0.4
7	225	4.4	-	4.9	49.3	6.7	1.8	1.3	17.3	70.2	0.9	1.8
8	592	3.4	-	12.5	47.6	7.4	2.0	1.7	14.9	71.6	1.0	1.4

Note. Numbers reflect full sample separated by District. However, during analyses students were excluded listwise and the actual demographics of students included varies by analysis. All values thus more accurately represent the District and not necessarily the analyses, and only provide a general indication of the students included in the analyses.

ELL – English Language Learner, FRL – Free or reduced lunch eligible, SPED – Student receives special education services

District Descriptive Statistics and Correlations

District 1 Descriptive Statistics – Grade 3

	N	Minimum	Maximum	Mean	Std. Deviation
MSP Reading	1023	6	500	406.47	57.563
Wint10WRF	23	17	91	57.61	16.211
Wint10PRF	23	45	175	116.52	32.822
Wint10MCRC	101	0	17	11.41	3.499
Spr10WRF	64	17	208	85.16	45.793
Spr10PRF	45	40	223	111.91	46.632
Spr10MCRC	328	0	20	13.55	4.044
Spr10Voc	238	0	25	21.23	4.340

District 1 Grade 3 Correlations

		Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	Spr PRF	MSP Reading
Wint10MCRC	Pearson Correlation	1	.607**	.703**	.383**	. ^a	.606**
	N	101	23	50	77	0	101
Wint10PRF	Pearson Correlation	.607**	1	. ^a	.597**	. ^a	.580**
	N	23	23	0	22	0	23
Spr10Voc	Pearson Correlation	.703**	. ^a	1	.509**	.640**	.662**
	N	50	0	238	220	30	238
Spr10MCRC	Pearson Correlation	.383**	.597**	.509**	1	.504**	.663**
	N	77	22	220	328	31	328
Spr10PRF	Pearson Correlation	. ^a	. ^a	.640**	.504**	1	.672**
	N	0	0	30	31	45	45
MSP Reading	Pearson Correlation	.606**	.580**	.662**	.663**	.672**	1
	N	101	23	238	328	45	1023

a. Cannot be computed because at least one of the variables is constant.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

District 1 Descriptive Statistics – Grade 4

	N	Minimum	Maximum	Mean	Std. Deviation
MSP Reading	993	8	475	401.90	50.043
Wint10MCRC	154	0	20	14.14	4.044
Spr10PRF	5	91	112	104.20	8.758
Spr10MCRC	285	0	20	12.95	4.911
Spr10Voc	231	0	25	19.07	4.562

District 1 Grade 4 Correlations

		Wint10MCRC	Spr10Voc	Spr10MCRC	Spr10PRF	MSP Reading
Wint10MCRC	Pearson Correlation	1	.360**	.562**	. ^a	.594**
	N	154	54	87	0	154
Spr10Voc	Pearson Correlation	.360**	1	.449**	. ^a	.724**
	N	54	231	151	0	231
Spr10MCRC	Pearson Correlation	.562**	.449**	1	. ^a	.553**
	N	87	151	285	0	285
Spr10PRF	Pearson Correlation	. ^a	. ^a	. ^a	1	-.054
	N	0	0	0	5	5
MSP Reading	Pearson Correlation	.594**	.724**	.553**	-.054	1
	N	154	231	285	5	993

a. Cannot be computed because at least one of the variables is constant.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

District 1 Descriptive Statistics – Grade 5

	N	Minimum	Maximum	Mean	Std. Deviation
MSP Reading	1000	9	475	405.13	50.372
Wint10MCRC	45	10	20	16.82	2.167
Spr10MCRC	424	0	19	14.18	3.313
Spr10Voc	324	0	25	19.96	3.724

District 1 Grade 5 Correlations

		Wint10MCRC	Spr10Voc	Spr10MCRC	MSP Reading
Wint10MCRC	Pearson Correlation	1	.677**	.786**	.708**
	N	45	45	44	45
Spr10Voc	Pearson Correlation	.677**	1	.485**	.629**
	N	45	324	301	324
Spr10MCRC	Pearson Correlation	.786**	.485**	1	.518**
	N	44	301	424	424
MSP Reading	Pearson Correlation	.708**	.629**	.518**	1
	N	45	324	424	1000

a. Cannot be computed because at least one of the variables is constant.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

District 1 Descriptive Statistics – Grade 6

	N	Minimum	Maximum	Mean	Std. Deviation
MSP Reading	940	6	475	400.61	40.612
Wint10MCRC	19	0	18	13.05	4.156
Spr10PRF	57	80	299	176.61	49.504
Spr10MCRC	658	0	20	14.17	3.618
Spr10Voc	577	0	25	15.97	4.287

District 1 Grade 6 Correlations

		Wint10MCRC	Spr10Voc	Spr10MCRC	Spr10PRF	MSP Reading
Wint10MCRC	Pearson Correlation	1	.591**	.463*	. ^a	.675**
	N	19	19	19	0	19
Spr10Voc	Pearson Correlation	.591**	1	.481**	.099	.614**
	N	19	577	558	54	577
Spr10MCRC	Pearson Correlation	.463*	.481**	1	.514**	.573**
	N	19	558	658	55	658
Spr10PRF	Pearson Correlation	. ^a	.099	.514**	1	.506**
	N	0	54	55	57	57
MSP Reading	Pearson Correlation	.675**	.614**	.573**	.506**	1
	N	19	577	658	57	940

a. Cannot be computed because at least one of the variables is constant.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

District 1 Descriptive Statistics – Grade 7

	N	Minimum	Maximum	Mean	Std. Deviation
MSP Reading	982	6	475	399.16	56.337
Wint10PRF	222	72	282	174.06	40.613
Wint10MCRC	124	5	19	14.97	3.092
Spr10PRF	56	95	235	139.82	31.320
Spr10MCRC	852	0	19	12.11	3.024
Spr10Voc	598	0	25	14.63	4.175

District 1 Grade 7 Correlations

		Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	Spr PRF	MSP Rdg
Wint MCRC	Pearson Correlation	1	. ^a	.137	.496 ^{**}	.154	.630 ^{**}
	N	124	0	18	108	15	124
Wint PRF	Pearson Correlation	. ^a	1	.401 ^{**}	.378 ^{**}	. ^a	.564 ^{**}
	N	0	222	210	213	1	222
Spr Voc	Pearson Correlation	.137	.401 ^{**}	1	.337 ^{**}	.609 ^{**}	.248 ^{**}
	N	18	210	598	598	18	598
Spr MCRC	Pearson Correlation	.496 ^{**}	.378 ^{**}	.337 ^{**}	1	.349 [*]	.365 ^{**}
	N	108	213	598	852	52	852
Spr PRF	Pearson Correlation	.154	. ^a	.609 ^{**}	.349 [*]	1	.164
	N	15	1	18	52	56	56
MSP Rdg	Pearson Correlation	.630 ^{**}	.564 ^{**}	.248 ^{**}	.365 ^{**}	.164	1
	N	124	222	598	852	56	982

a. Cannot be computed because at least one of the variables is constant.

^{**}. Correlation is significant at the 0.01 level (2-tailed).

^{*}. Correlation is significant at the 0.05 level (2-tailed).

District 1 Descriptive Statistics – Grade 8

	N	Minimum	Maximum	Mean	Std. Deviation
MSP Reading	994	12	500	402.17	62.786
Wint10MCRC	12	0	16	6.58	7.416
Spr10PRF	11	120	196	154.73	23.478
Spr10MCRC	385	0	20	12.70	3.742
Spr10Voc	332	0	25	16.18	4.420

District 1 Grade 8 Correlations

		Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	Spr PRF	MSP Rdg
Fall PRF	Pearson Corr	1	.484**	.908**	-.693	.482**	.849**	.603**
	N	246	232	225	5	222	216	243
Wint MCRC	Pearson Corr	.484**	1	.508**	.609	.589**	.496**	.580**
	N	232	280	248	10	241	236	277
Wint PRF	Pearson Corr	.908**	.508**	1	-.749	.467**	.874**	.585**
	N	225	248	258	5	229	228	254
Spr Voc	Pearson Corr	-.693	.609	-.749	1	.396**	-.154	.352**
	N	5	10	5	338	336	6	317
Spr MCRC	Pearson Corr	.482**	.589**	.467**	.396**	1	.418**	.482**
	N	222	241	229	336	634	229	611
Spr PRF	Pearson Corr	.849**	.496**	.874**	-.154	.418**	1	.571**
	N	216	236	228	6	229	263	259
MSP Rdg	Pearson Corr	.603**	.580**	.585**	.352**	.482**	.571**	1
	N	243	277	254	317	611	259	1281

a. Cannot be computed because at least one of the variables is constant.

**, Correlation is significant at the 0.01 level (2-tailed).

District 2 Descriptive Statistics – Grade 3

	N	Minimum	Maximum	Mean	Std. Deviation
MSPReading	269	327	483	403.64	26.168
Fall09WRF	257	2	96	45.09	19.663
Fall09PRF	257	4	199	78.30	35.990
Fall09MCRC	257	0	17	9.70	3.358
Fall09Voc	258	5	25	15.56	4.744
Wint10WRF	267	6	111	53.87	22.132
Wint10PRF	267	13	217	106.79	39.280
Wint10MCRC	266	0	16	9.67	3.068
Spr10WRF	268	7	115	60.57	20.854
Spr10PRF	269	11	254	107.16	40.439
Spr10MCRC	268	0	19	12.78	3.816
Spr10Voc	267	4	25	20.14	4.436

District 2 Grade 3 Correlations

		Fall Voc	Fall MCRC	Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	SprPRF	MSP Rdg
Fall Voc	Pearson Corr	1	.533**	.692**	.540**	.679**	.759**	.599**	.659**	.679**
	N	258	256	257	257	257	253	254	255	254
Fall MCRC	Pearson Corr	.533**	1	.611**	.534**	.563**	.508**	.596**	.549**	.516**
	N	256	257	255	256	256	252	253	254	253
Fall PRF	Pearson Corr	.692**	.611**	1	.541**	.879**	.644**	.625**	.849**	.635**
	N	257	255	257	256	256	252	253	254	253
Wint MCRC	Pearson Corr	.540**	.534**	.541**	1	.501**	.557**	.484**	.483**	.552**
	N	257	256	256	266	265	261	262	262	262
Wint PRF	Pearson Corr	.679**	.563**	.879**	.501**	1	.641**	.624**	.882**	.602**
	N	257	256	256	265	267	260	261	262	262
Spr Voc	Pearson Corr	.759**	.508**	.644**	.557**	.641**	1	.600**	.643**	.631**
	N	253	252	252	261	260	267	266	267	263
Spr MCRC	Pearson Corr	.599**	.596**	.625**	.484**	.624**	.600**	1	.612**	.603**
	N	254	253	253	262	261	266	268	267	264
Spr PRF	Pearson Corr	.659**	.549**	.849**	.483**	.882**	.643**	.612**	1	.603**
	N	255	254	254	262	262	267	267	269	265
MSP Rdg	Pearson Corr	.679**	.516**	.635**	.552**	.602**	.631**	.603**	.603**	1
	N	254	253	253	262	262	263	264	265	269

** . Correlation is significant at the 0.01 level (2-tailed).

District 2 Descriptive Statistics – Grade 4

	N	Minimum	Maximum	Mean	Std. Deviation
MSPReading	258	359	475	402.74	18.708
Fall09PRF	140	24	187	99.30	30.383
Fall09MCRC	140	0	19	10.39	4.078
Fall09Voc	140	0	24	14.24	4.229
Wint10PRF	256	25	199	118.10	33.851
Wint10MCRC	256	3	20	13.96	3.490
Spr10PRF	264	35	252	127.41	39.523
Spr10MCRC	266	0	20	14.26	3.802
Spr10Voc	244	4	25	18.09	4.070

District 2 Grade 4 Correlations

		Fall Voc	Fall MCRC	Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	SprPRF	MSP Rdg
Fall Voc	Pearson Corr	1	.597**	.599**	.508**	.563**	.731**	.517**	.624**	.512**
	N	140	140	140	139	139	120	137	137	131
Fall MCRC	Pearson Corr	.597**	1	.493**	.499**	.466**	.627**	.539**	.560**	.522**
	N	140	140	140	139	139	120	137	137	131
Fall PRF	Pearson Corr	.599**	.493**	1	.455**	.817**	.549**	.364**	.824**	.378**
	N	140	140	140	139	139	120	137	137	131
Wint MCRC	Pearson Corr	.508**	.499**	.455**	1	.524**	.552**	.566**	.559**	.547**
	N	139	139	139	256	255	232	252	252	245
Wint PRF	Pearson Corr	.563**	.466**	.817**	.524**	1	.597**	.452**	.842**	.462**
	N	139	139	139	255	256	232	252	252	245
Spr Voc	Pearson Corr	.731**	.627**	.549**	.552**	.597**	1	.536**	.583**	.532**
	N	120	120	120	232	232	244	242	241	232
Spr MCRC	Pearson Corr	.517**	.539**	.364**	.566**	.452**	.536**	1	.475**	.580**
	N	137	137	137	252	252	242	266	263	254
Spr PRF	Pearson Corr	.624**	.560**	.824**	.559**	.842**	.583**	.475**	1	.518**
	N	137	137	137	252	252	241	263	264	254
MSP Rdg	Pearson Corr	.512**	.522**	.378**	.547**	.462**	.532**	.580**	.518**	1
	N	131	131	131	245	245	232	254	254	258

**, Correlation is significant at the 0.01 level (2-tailed).

District 2 Descriptive Statistics – Grade 5

	N	Minimum	Maximum	Mean	Std. Deviation
MSPReading	255	335	475	400.47	26.896
Fall09PRF	149	0	240	130.15	46.039
Fall09MCRC	148	0	20	13.18	3.313
Fall09Voc	149	5	24	15.42	4.899
Wint10PRF	252	3	248	140.78	41.338
Wint10MCRC	252	4	20	15.40	3.226
Spr10PRF	231	9	256	152.17	40.653
Spr10MCRC	256	0	20	14.21	3.063
Spr10Voc	251	0	25	18.33	4.401

District 2 Grade 5 Correlations

		Fall Voc	Fall MCRC	Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	SprPRF	MSP Rdg
Fall Voc	Pearson Corr	1	.642**	.651**	.559**	.593**	.741**	.580**	.613**	.700**
	N	149	148	149	147	147	146	147	147	146
Fall MCRC	Pearson Corr	.642**	1	.621**	.650**	.621**	.625**	.725**	.624**	.647**
	N	148	148	148	146	146	145	146	146	145
Fall PRF	Pearson Corr	.651**	.621**	1	.603**	.938**	.609**	.551**	.911**	.670**
	N	149	148	149	147	147	146	147	147	146
Wint MCRC	Pearson Corr	.559**	.650**	.603**	1	.539**	.614**	.672**	.536**	.609**
	N	147	146	147	252	252	248	251	227	248
Wint PRF	Pearson Corr	.593**	.621**	.938**	.539**	1	.546**	.520**	.912**	.636**
	N	147	146	147	252	252	248	251	227	248
Spr Voc	Pearson Corr	.741**	.625**	.609**	.614**	.546**	1	.612**	.565**	.637**
	N	146	145	146	248	248	251	251	229	247
Spr MCRC	Pearson Corr	.580**	.725**	.551**	.672**	.520**	.612**	1	.531**	.554**
	N	147	146	147	251	251	251	256	231	252
Spr PRF	Pearson Corr	.613**	.624**	.911**	.536**	.912**	.565**	.531**	1	.652**
	N	147	146	147	227	227	229	231	231	228
MSP Rdg	Pearson Corr	.700**	.647**	.670**	.609**	.636**	.637**	.554**	.652**	1
	N	146	145	146	248	248	247	252	228	255

** . Correlation is significant at the 0.01 level (2-tailed).

District 2 Descriptive Statistics – Grade 6

	N	Minimum	Maximum	Mean	Std. Deviation
MSPReading	244	339	466	399.33	19.717
Fall09PRF	244	24	247	143.16	33.356
Fall09MCRC	260	1	19	13.56	3.284
Fall09Voc	259	2	23	14.00	4.216
Wint10PRF	270	36	259	160.82	42.234
Wint10MCRC	270	0	19	13.38	3.074
Spr10PRF	12	54	120	93.42	22.076
Spr10MCRC	270	5	20	14.24	3.102
Spr10Voc	258	5	24	14.91	3.999

District 2 Grade 6 Correlations

		Fall Voc	Fall MCRC	Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	SprPRF	MSP Rdg
Fall Voc	Pearson Corr	1	.503**	.484**	.384**	.489**	.700**	.401**	.602	.496**
	N	259	258	242	258	258	243	254	6	232
Fall MCRC	Pearson Corr	.503**	1	.488**	.525**	.607**	.516**	.544**	.780	.595**
	N	258	260	243	259	260	244	255	6	233
Fall PRF	Pearson Corr	.484**	.488**	1	.488**	.863**	.508**	.446**	1.000**	.482**
	N	242	243	244	243	243	228	239	2	231
Wint MCRC	Pearson Corr	.384**	.525**	.488**	1	.512**	.440**	.542**	.545	.511**
	N	258	259	243	270	269	253	265	11	241
Wint PRF	Pearson Corr	.489**	.607**	.863**	.512**	1	.538**	.494**	.712*	.491**
	N	258	260	243	269	270	253	265	11	241
Spr Voc	Pearson Corr	.700**	.516**	.508**	.440**	.538**	1	.486**	.244	.556**
	N	243	244	228	253	253	258	258	11	227
Spr MCRC	Pearson Corr	.401**	.544**	.446**	.542**	.494**	.486**	1	.497	.628**
	N	254	255	239	265	265	258	270	12	239
Spr PRF	Pearson Corr	.602	.780	1.000**	.545	.712*	.244	.497	1	.256
	N	6	6	2	11	11	11	12	12	4
MSP Rdg	Pearson Corr	.496**	.595**	.482**	.511**	.491**	.556**	.628**	.256	1
	N	232	233	231	241	241	227	239	4	244

**. Correlation is significant at the 0.01 level (2-tailed).

District 2 Descriptive Statistics – Grade 7

	N	Minimum	Maximum	Mean	Std. Deviation
MSPReading	221	343	475	406.71	22.964
Fall09PRF	198	72	257	147.96	29.747
Fall09MCRC	211	0	20	13.46	3.271
Fall09Voc	210	3	24	13.30	4.315
Wint10PRF	210	39	304	163.05	39.995
Wint10MCRC	219	0	20	14.83	3.072
Spr10PRF	207	49	255	152.57	37.117
Spr10MCRC	219	0	18	12.33	3.046
Spr10Voc	218	6	25	14.49	4.053

District 2 Grade 7 Correlations

		Fall Voc	Fall MCRC	Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	SprPRF	MSP Rdg
Fall Voc	Pearson Corr	1	.495**	.498**	.385**	.532**	.708**	.413**	.535**	.631**
	N	210	209	197	210	201	204	205	193	210
Fall MCRC	Pearson Corr	.495**	1	.455**	.474**	.478**	.480**	.502**	.420**	.609**
	N	209	211	197	210	201	205	206	194	211
Fall PRF	Pearson Corr	.498**	.455**	1	.340**	.806**	.457**	.338**	.820**	.516**
	N	197	197	198	198	189	193	194	182	198
Wint MCRC	Pearson Corr	.385**	.474**	.340**	1	.509**	.362**	.455**	.475**	.413**
	N	210	210	198	219	210	213	214	202	215
Wint PRF	Pearson Corr	.532**	.478**	.806**	.509**	1	.536**	.461**	.859**	.541**
	N	201	201	189	210	210	204	205	193	206
Spr Voc	Pearson Corr	.708**	.480**	.457**	.362**	.536**	1	.398**	.524**	.591**
	N	204	205	193	213	204	218	218	207	214
Spr MCRC	Pearson Corr	.413**	.502**	.338**	.455**	.461**	.398**	1	.437**	.490**
	N	205	206	194	214	205	218	219	207	215
Spr PRF	Pearson Corr	.535**	.420**	.820**	.475**	.859**	.524**	.437**	1	.507**
	N	193	194	182	202	193	207	207	207	203
MSP Rdg	Pearson Corr	.631**	.609**	.516**	.413**	.541**	.591**	.490**	.507**	1
	N	210	211	198	215	206	214	215	203	221

**. Correlation is significant at the 0.01 level (2-tailed).

District 2 Descriptive Statistics – Grade 8

	N	Minimum	Maximum	Mean	Std. Deviation
MSPReading	287	300	500	404.36	31.510
MSPMath	290	265	521	388.43	40.205
MSPScience	288	314	461	388.53	29.442
Fall09PRF	246	15	267	144.17	41.852
Wint10PRF	258	32	267	154.25	41.876
Wint10MCRC	268	0	19	12.30	3.402
Spr10PRF	252	25	274	168.79	37.575
Spr10MCRC	249	0	19	12.72	3.665
Spr10Voc	6	0	15	5.83	5.269

District 2 Grade 8 Correlations

		Fall PRF	Wint MCRC	Wint PRF	Spr Voc	Spr MCRC	SprPRF	MSP Rdg
Fall PRF	Pearson Corr	1	.484**	.908**	-.693	.482**	.849**	.603**
	N	246	232	225	5	222	216	243
Wint MCRC	Pearson Corr	.484**	1	.508**	-.039	.601**	.496**	.660**
	N	232	268	248	6	237	236	265
Wint PRF	Pearson Corr	.908**	.508**	1	-.749	.467**	.874**	.585**
	N	225	248	258	5	229	228	254
Spr Voc	Pearson Corr	-.693	-.039	-.749	1	-.310	-.154	-.088
	N	5	6	5	6	6	6	6
Spr MCRC	Pearson Corr	.482**	.601**	.467**	-.310	1	.418**	.627**
	N	222	237	229	6	249	229	249
Spr PRF	Pearson Corr	.849**	.496**	.874**	-.154	.418**	1	.575**
	N	216	236	228	6	229	252	251
MSP Rdg	Pearson Corr	.603**	.660**	.585**	-.088	.627**	.575**	1
	N	243	265	254	6	249	251	287

**, Correlation is significant at the 0.01 level (2-tailed).

Grade 3

Full Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	404.71	26.462	243
Fall09WRF	45.86	19.192	243
Fall09Voc	15.73	4.632	243
Fall09MCRC	9.80	3.359	243
Fall09PRF	79.93	35.474	243
Wint10WRF	54.99	20.908	243
Wint10PRF	108.69	37.090	243
Wint10MCRC	9.75	2.976	243
Spr10WRF	61.56	19.810	243
Spr10Voc	20.38	4.108	243
Spr10MCRC	12.95	3.622	243
Spr10PRF	108.42	38.330	243

		Correlations											
		MSP	Fall09W	Fall09V	Fall09MC	Fall09P	Wint10W	Wint10P	Wint10M	Spr10W	Spr10V	Spr10MC	Spr10P
		Reading	RF	oc	RC	RF	RF	RF	CRC	RF	oc	RC	RF
Pearson	MSP Reading	1.000	.575	.683	.520	.634	.557	.595	.602	.504	.645	.607	.600
Correlation	Fall09WRF	.575	1.000	.662	.551	.884	.894	.859	.481	.849	.651	.575	.811
	Fall09Voc	.683	.662	1.000	.529	.679	.661	.653	.543	.621	.756	.609	.637
	Fall09MCRC	.520	.551	.529	1.000	.599	.542	.551	.520	.490	.485	.607	.539
	Fall09PRF	.634	.884	.679	.599	1.000	.815	.871	.539	.767	.623	.610	.840
	Wint10WRF	.557	.894	.661	.542	.815	1.000	.893	.466	.878	.640	.570	.830
	Wint10PRF	.595	.859	.653	.551	.871	.893	1.000	.519	.821	.606	.609	.873
	Wint10MCRC	.602	.481	.543	.520	.539	.466	.519	1.000	.438	.570	.539	.501
	Spr10WRF	.504	.849	.621	.490	.767	.878	.821	.438	1.000	.640	.513	.847
	Spr10Voc	.645	.651	.756	.485	.623	.640	.606	.570	.640	1.000	.584	.625
	Spr10MCRC	.607	.575	.609	.607	.610	.570	.609	.539	.513	.584	1.000	.602
	Spr10PRF	.600	.811	.637	.539	.840	.830	.873	.501	.847	.625	.602	1.000

Note. All values significant, $p < .01$. $n = 243$

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Wint10MCRC, Fall09MCRC, Spr10Voc, Spr10MCRC, Fall09Voc, Fall09WRF, Spr10WRF, Wint10PRF, Fall09PRF, Wint10WRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.776 ^a	.602	.583	17.093

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	101971.298	11	9270.118	31.730	.000 ^a
	Residual	67488.537	231	292.158		
	Total	169459.835	242			

Coefficients ^a								
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
1 (Constant)	321.422	6.298		51.037	.000			
Fall09WRF	-.019	.167	-.014	-.116	.908	.575	-.008	-.005
Fall09Voc	1.511	.408	.264	3.703	.000	.683	.237	.154
Fall09MCRC	.260	.453	.033	.573	.567	.520	.038	.024
Fall09PRF	.119	.084	.159	1.415	.158	.634	.093	.059
Wint10WRF	-.011	.156	-.009	-.070	.944	.557	-.005	-.003
Wint10PRF	.012	.085	.017	.145	.885	.595	.010	.006
Wint10MCRC	1.710	.497	.192	3.444	.001	.602	.221	.143
Spr10WRF	-.259	.137	-.194	-1.885	.061	.504	-.123	-.078
Spr10Voc	1.093	.457	.170	2.391	.018	.645	.155	.099
Spr10MCRC	.924	.451	.127	2.049	.042	.607	.134	.085
Spr10PRF	.117	.071	.169	1.645	.101	.600	.108	.068

Full Model minus WRF

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	404.74	26.411	244
Fall09Voc	15.75	4.634	244
Fall09MCRC	9.80	3.354	244
Fall09PRF	79.91	35.403	244
Wint10PRF	108.70	37.014	244
Wint10MCRC	9.74	2.975	244
Spr10Voc	20.38	4.099	244
Spr10MCRC	12.93	3.619	244
Spr10PRF	108.39	38.254	244

		Correlations								
		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF	Wint10PRF	Wint10MCRC	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson	MSP Reading	1.000	.683	.519	.634	.595	.600	.645	.606	.600
Correlation	Fall09Voc	.683	1.000	.524	.676	.651	.537	.755	.603	.635
	Fall09MCRC	.519	.524	1.000	.599	.551	.520	.484	.608	.539
	Fall09PRF	.634	.676	.599	1.000	.871	.538	.623	.610	.840
	Wint10PRF	.595	.651	.551	.871	1.000	.518	.606	.608	.873
	Wint10MCRC	.600	.537	.520	.538	.518	1.000	.568	.540	.501
	Spr10Voc	.645	.755	.484	.623	.606	.568	1.000	.583	.625
	Spr10MCRC	.606	.603	.608	.610	.608	.540	.583	1.000	.602
	Spr10PRF	.600	.635	.539	.840	.873	.501	.625	.602	1.000

Note. All values significant, $p < .01$. $n = 244$

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Wint10MCRC, Fall09MCRC, Spr10Voc, Spr10MCRC, Fall09Voc, Fall09PRF, Wint10PRF ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.769 ^a	.592	.578	17.157

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	100321.923	8	12540.240	42.600	.000 ^a
	Residual	69177.290	235	294.371		
	Total	169499.213	243			

Coefficients ^a								
	Unstandardized		Standardized		Sig.	Correlations		
	Coefficients		Coefficients			Zero-order	Partial	Part
Model	B	Std. Error	Beta	t				
1 (Constant)	320.733	6.110		52.496	.000			
Fall09Voc	1.508	.404	.265	3.733	.000	.683	.237	.156
Fall09MCRC	.213	.453	.027	.470	.638	.519	.031	.020
Fall09PRF	.111	.071	.148	1.553	.122	.634	.101	.065
Wint10PRF	-.040	.072	-.056	-.550	.583	.595	-.036	-.023
Wint10MCRC	1.829	.492	.206	3.720	.000	.600	.236	.155
Spr10Voc	.831	.443	.129	1.877	.062	.645	.122	.078
Spr10MCRC	1.050	.448	.144	2.344	.020	.606	.151	.098
Spr10PRF	.049	.064	.071	.765	.445	.600	.050	.032

Individual Fall models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	404.25	26.216	254
Fall09Voc	15.60	4.716	254

Correlations

		MSP Reading	Fall09Voc
Pearson Correlation	MSP Reading	1.000	.679
	Fall09Voc	.679	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09Voc	.000	.
N	MSP Reading	254	254
	Fall09Voc	254	254

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.679 ^a	.460	.458	19.295

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80065.261	1	80065.261	215.053	.000 ^a
	Residual	93820.613	252	372.304		
	Total	173885.874	253			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	345.413	4.191		82.419	.000
	Fall09Voc	3.772	.257	.679	14.665	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	404.26	26.280	253
Fall09MCRC	9.71	3.378	253

Correlations

		MSP Reading	Fall09MCRC
Pearson Correlation	MSP Reading	1.000	.516
	Fall09MCRC	.516	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09MCRC	.000	.
N	MSP Reading	253	253
	Fall09MCRC	253	253

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.516 ^a	.266	.263	22.562

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46263.386	1	46263.386	90.882	.000 ^a
	Residual	127770.915	251	509.047		
	Total	174034.300	252			

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	365.306	4.325		84.464	.000
Fall09MCRC	4.011	.421	.516	9.533	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	404.22	26.262	253
Fall09PRF	78.64	35.770	253

Correlations

		MSP Reading	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.635
	Fall09PRF	.635	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09PRF	.000	.
N	MSP Reading	253	253
	Fall09PRF	253	253

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.635 ^a	.404	.401	20.318

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70186.081	1	70186.081	170.008	.000 ^a
	Residual	103622.962	251	412.840		
	Total	173809.043	252			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	367.525	3.090		118.922
	Fall09PRF	.467	.036	.635	13.039

Full Seasonal Fall Model**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	404.34	26.314	251
Fall09Voc	15.61	4.677	251
Fall09MCRC	9.72	3.380	251
Fall09PRF	78.84	35.790	251

Correlations

		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.679	.513	.634
	Fall09Voc	.679	1.000	.536	.688
	Fall09MCRC	.513	.536	1.000	.611
	Fall09PRF	.634	.688	.611	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Fall09Voc	.000	.	.000	.000
	Fall09MCRC	.000	.000	.	.000
	Fall09PRF	.000	.000	.000	.
N	MSP Reading	251	251	251	251
	Fall09Voc	251	251	251	251
	Fall09MCRC	251	251	251	251
	Fall09PRF	251	251	251	251

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF, Fall09MCRC, Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723 ^a	.523	.517	18.288

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	90491.386	3	30163.795	90.190	.000 ^a
	Residual	82608.829	247	334.449		
	Total	173100.215	250			

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
	B	Std. Error	Beta	t		Zero-order	Partial	Part
1 (Constant)	341.888	4.368		78.269	.000			
Fall09Voc	2.452	.348	.436	7.050	.000	.679	.409	.310
Fall09MCRC	.934	.441	.120	2.117	.035	.513	.134	.093
Fall09PRF	.192	.048	.261	3.953	.000	.634	.244	.174

Individual Winter Models**PRF****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	404.51	26.300	285
Wint10PRF	107.76	38.307	285

Correlations

		MSP Reading	Wint10PRF
Pearson Correlation	MSP Reading	1.000	.603
	Wint10PRF	.603	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10PRF	.000	.
N	MSP Reading	285	285
	Wint10PRF	285	285

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603 ^a	.363	.361	21.022

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71370.415	1	71370.415	161.501	.000 ^a
	Residual	125062.813	283	441.918		
	Total	196433.228	284			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	359.916	3.723		96.664	.000
	Wint10PRF	.414	.033	.603	12.708	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	408.79	27.814	363
Wint10MCRC	10.15	3.295	363

Correlations

		MSP Reading	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.597
	Wint10MCRC	.597	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10MCRC	.000	.
N	MSP Reading	363	363
	Wint10MCRC	363	363

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597 ^a	.357	.355	22.337

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99942.127	1	99942.127	200.314	.000 ^a
	Residual	180112.540	361	498.927		
	Total	280054.667	362			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	357.577	3.804		94.013	.000
	Wint10MCRC	5.043	.356	.597	14.153	.000

Full Seasonal Winter Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	404.69	26.167	284
Wint10PRF	108.07	38.001	284
Wint10MCRC	9.71	3.094	284

Correlations				
		MSP Reading	Wint10PRF	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.596	.551
	Wint10PRF	.596	1.000	.518
	Wint10MCRC	.551	.518	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000
	Wint10PRF	.000	.	.000
	Wint10MCRC	.000	.000	.
N	MSP Reading	284	284	284
	Wint10PRF	284	284	284
	Wint10MCRC	284	284	284

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC, Wint10PRF ^a	.	Enter

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.660 ^a	.436	.432	19.723

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84465.485	2	42232.742	108.571	.000 ^a
	Residual	109305.248	281	388.987		
	Total	193770.732	283			

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
	B	Std. Error	Beta	t		Zero-order	Partial	Part
1 (Constant)	345.870	4.208		82.203	.000			
Wint10PRF	.293	.036	.425	8.114	.000	.596	.436	.364
Wint10MCRC	2.801	.443	.331	6.322	.000	.551	.353	.283

Individual Spring Models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	407.49	27.162	501
Spr10Voc	20.68	4.387	501

Correlations

		MSP Reading	Spr10Voc
Pearson Correlation	MSP Reading	1.000	.651
	Spr10Voc	.651	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10Voc	.000	.
N	MSP Reading	501	501
	Spr10Voc	501	501

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.651 ^a	.424	.423	20.637

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	156379.009	1	156379.009	367.183	.000 ^a
	Residual	212518.180	499	425.888		
	Total	368897.190	500			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	324.130	4.447		72.890
	Spr10Voc	4.031	.210	.651	19.162

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	409.90	27.287	592
Spr10MCRC	13.23	3.914	592

Correlations

		MSP Reading	Spr10MCRC
Pearson Correlation	MSP Reading	1.000	.641
	Spr10MCRC	.641	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10MCRC	.000	.
N	MSP Reading	592	592
	Spr10MCRC	592	592

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641 ^a	.411	.410	20.960

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	180846.121	1	180846.121	411.658	.000 ^a
	Residual	259193.798	590	439.312		
	Total	440039.919	591			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	350.768	3.039		115.421	.000
	Spr10MCRC	4.470	.220	.641	20.289	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	404.10	26.387	310
Spr10PRF	108.38	41.114	310

Correlations

		MSP Reading	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.614
	Spr10PRF	.614	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10PRF	.000	.
N	MSP Reading	310	310
	Spr10PRF	310	310

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.614 ^a	.378	.376	20.851

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81236.012	1	81236.012	186.852	.000 ^a
	Residual	133906.685	308	434.762		
	Total	215142.697	309			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	361.362	3.344		108.077	.000
	Spr10PRF	.394	.029	.614	13.669	.000

Full Seasonal Spring Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	404.93	26.489	292
Spr10Voc	20.37	4.241	292
Spr10MCRC	13.03	3.750	292
Spr10PRF	110.53	40.846	292

Correlations					
		MSP Reading	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.659	.626	.609
	Spr10Voc	.659	1.000	.583	.634
	Spr10MCRC	.626	.583	1.000	.590
	Spr10PRF	.609	.634	.590	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Spr10Voc	.000	.	.000	.000
	Spr10MCRC	.000	.000	.	.000
	Spr10PRF	.000	.000	.000	.
N	MSP Reading	292	292	292	292
	Spr10Voc	292	292	292	292
	Spr10MCRC	292	292	292	292
	Spr10PRF	292	292	292	292

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10MCRC, Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739 ^a	.546	.541	17.939

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	111506.631	3	37168.877	115.505	.000 ^a
	Residual	92677.133	288	321.796		
	Total	204183.764	291			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	317.681	5.295		60.000	.000			
	Spr10Voc	2.207	.340	.353	6.486	.000	.659	.357	.257
	Spr10MCRC	2.091	.369	.296	5.673	.000	.626	.317	.225
	Spr10PRF	.136	.036	.210	3.831	.000	.609	.220	.152

Grade 4

Full Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	403.18	20.480	109
Fall09Voc	15.11	3.804	109
Fall09MCRC	11.39	3.671	109
Fall09PRF	103.85	29.623	109
Wint10PRF	123.62	31.604	109
Wint10MCRC	14.25	3.154	109
Spr10Voc	18.50	3.955	109
Spr10MCRC	14.32	3.795	109
Spr10PRF	130.21	35.256	109

Correlations

		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF	Wint10PRF	Wint10MCRC	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.494	.619	.407	.389	.636	.509	.580	.397
	Fall09Voc	.494	1.000	.594	.566	.557	.448	.723	.445	.565
	Fall09MCRC	.619	.594	1.000	.518	.564	.523	.608	.539	.565
	Fall09PRF	.407	.566	.518	1.000	.803	.397	.463	.337	.826
	Wint10PRF	.389	.557	.564	.803	1.000	.451	.550	.378	.835
	Wint10MCRC	.636	.448	.523	.397	.451	1.000	.572	.576	.400
	Spr10Voc	.509	.723	.608	.463	.550	.572	1.000	.503	.519
	Spr10MCRC	.580	.445	.539	.337	.378	.576	.503	1.000	.312
	Spr10PRF	.397	.565	.565	.826	.835	.400	.519	.312	1.000

Note. All values significant, $p < .01$. $n = 109$

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10MCRC, Wint10MCRC, Fall09Voc, Fall09MCRC, Spr10Voc, Fall09PRF, Wint10PRF ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.746 ^a	.556	.521	14.180

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25188.888	8	3148.611	15.659	.000 ^a
	Residual	20107.443	100	201.074		
	Total	45296.330	108			

Coefficients ^a									
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations		
	B	Std. Error	Beta				Zero-order	Partial	Part
1 (Constant)	333.513	7.628			43.725	.000			
Fall09Voc	.532	.572	.099	.929	.355		.494	.093	.062
Fall09MCRC	1.706	.546	.306	3.123	.002		.619	.298	.208
Fall09PRF	.078	.090	.112	.862	.391		.407	.086	.057
Wint10PRF	-.116	.088	-.178	-1.317	.191		.389	-.131	-.088
Wint10MCRC	2.292	.590	.353	3.887	.000		.636	.362	.259
Spr10Voc	-.099	.570	-.019	-.174	.862		.509	-.017	-.012
Spr10MCRC	1.065	.477	.197	2.233	.028		.580	.218	.149
Spr10PRF	.018	.082	.031	.223	.824		.397	.022	.015

Individual Fall models

Voc

Descriptive Statistics

	Mean	Std. Deviation	N
MSP Reading	402.31	20.218	131
Fall09Voc	14.61	4.083	131

Correlations

		MSP Reading	Fall09Voc
Pearson Correlation	MSP Reading	1.000	.512
	Fall09Voc	.512	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09Voc	.000	.
N	MSP Reading	131	131
	Fall09Voc	131	131

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.512 ^a	.263	.257	17.430

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13953.188	1	13953.188	45.930	.000 ^a
	Residual	39188.980	129	303.791		
	Total	53142.168	130			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	365.239	5.678		64.322	.000
	Fall09Voc	2.537	.374	.512	6.777	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	402.31	20.218	131
Fall09MCRC	10.60	4.100	131

Correlations

		MSP Reading	Fall09MCRC
Pearson Correlation	MSP Reading	1.000	.522
	Fall09MCRC	.522	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09MCRC	.000	.
N	MSP Reading	131	131
	Fall09MCRC	131	131

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.522 ^a	.273	.267	17.307

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14500.768	1	14500.768	48.409	.000 ^a
	Residual	38641.400	129	299.546		
	Total	53142.168	130			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	375.021	4.204		89.207
	Fall09MCRC	2.576	.370	.522	6.958

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	402.31	20.218	131
Fall09PRF	101.45	29.665	131

Correlations

		MSP Reading	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.378
	Fall09PRF	.378	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09PRF	.000	.
N	MSP Reading	131	131
	Fall09PRF	131	131

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.378 ^a	.143	.137	18.787

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7610.156	1	7610.156	21.561	.000 ^a
	Residual	45532.012	129	352.961		
	Total	53142.168	130			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	376.147	5.869		64.088	.000
	Fall09PRF	.258	.056	.378	4.643	.000

Full Seasonal Fall Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	402.31	20.218	131
Fall09Voc	14.61	4.083	131
Fall09MCRC	10.60	4.100	131
Fall09PRF	101.45	29.665	131

Correlations					
		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.512	.522	.378
	Fall09Voc	.512	1.000	.589	.577
	Fall09MCRC	.522	.589	1.000	.483
	Fall09PRF	.378	.577	.483	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Fall09Voc	.000	.	.000	.000
	Fall09MCRC	.000	.000	.	.000
	Fall09PRF	.000	.000	.000	.
N	MSP Reading	131	131	131	131
	Fall09Voc	131	131	131	131
	Fall09MCRC	131	131	131	131
	Fall09PRF	131	131	131	131

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Fall09PRF, Fall09MCRC, Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.582 ^a	.339	.323	16.633

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18007.709	3	6002.570	21.697	.000 ^a
	Residual	35134.459	127	276.649		
	Total	53142.168	130			

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
	B	Std. Error	Beta	t		Zero-order	Partial	Part
1 (Constant)	360.626	5.944		60.667	.000			
Fall09Voc	1.432	.486	.289	2.949	.004	.512	.253	.213
Fall09MCRC	1.607	.451	.326	3.562	.001	.522	.301	.257
Fall09PRF	.037	.062	.054	.597	.551	.378	.053	.043

Individual Winter Models**PRF****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	403.31	18.698	245
Wint10PRF	119.62	33.289	245

Correlations

		MSP Reading	Wint10PRF
Pearson Correlation	MSP Reading	1.000	.462
	Wint10PRF	.462	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10PRF	.000	.
N	MSP Reading	245	245
	Wint10PRF	245	245

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.462 ^a	.214	.211	16.614

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18234.609	1	18234.609	66.065	.000 ^a
	Residual	67070.191	243	276.009		
	Total	85304.800	244			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	372.249	3.967		93.847
	Wint10PRF	.260	.032	.462	8.128

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.83	19.854	399
Wint10MCRC	14.12	3.670	399

Correlations

		MSP Reading	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.553
	Wint10MCRC	.553	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10MCRC	.000	.
N	MSP Reading	399	399
	Wint10MCRC	399	399

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.553 ^a	.306	.304	16.560

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48017.134	1	48017.134	175.095	.000 ^a
	Residual	108871.277	397	274.235		
	Total	156888.411	398			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	364.572	3.299		110.498
	Wint10MCRC	2.993	.226	.553	13.232

Full Seasonal Winter Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	403.28	18.730	244
Wint10PRF	119.58	33.350	244
Wint10MCRC	14.11	3.426	244

Correlations				
		MSP Reading	Wint10PRF	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.462	.546
	Wint10PRF	.462	1.000	.511
	Wint10MCRC	.546	.511	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000
	Wint10PRF	.000	.	.000
	Wint10MCRC	.000	.000	.
N	MSP Reading	244	244	244
	Wint10PRF	244	244	244
	Wint10MCRC	244	244	244

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC, Wint10PRF ^a		. Enter

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.586 ^a	.344	.338	15.238

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29283.735	2	14641.868	63.055	.000 ^a
	Residual	55961.753	241	232.206		
	Total	85245.488	243			

Coefficients^a

Model	Unstandardized		Standardized		Sig.	Correlations		
	Coefficients		Coefficients			Zero-order	Partial	Part
	B	Std. Error	Beta	t				
1 (Constant)	354.286	4.472		79.223	.000			
Wint10PRF	.139	.034	.247	4.075	.000	.462	.254	.213
Wint10MCRC	2.294	.332	.420	6.910	.000	.546	.407	.361

Individual Spring Models**VOC****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	405.16	19.930	463
Spr10Voc	18.70	4.259	463

Correlations

		MSP Reading	Spr10Voc
Pearson Correlation	MSP Reading	1.000	.643
	Spr10Voc	.643	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10Voc	.000	.
N	MSP Reading	463	463
	Spr10Voc	463	463

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643 ^a	.414	.413	15.273

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75965.738	1	75965.738	325.649	.000 ^a
	Residual	107539.787	461	233.275		
	Total	183505.525	462			

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	348.851	3.200		109.006	.000
	Spr10Voc	3.011	.167	.643	18.046	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	405.65	20.118	539
Spr10MCRC	13.69	4.397	539

Correlations

		MSP Reading	Spr10MCRC
Pearson Correlation	MSP Reading	1.000	.524
	Spr10MCRC	.524	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10MCRC	.000	.
N	MSP Reading	539	539
	Spr10MCRC	539	539

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.524 ^a	.275	.273	17.148

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59847.916	1	59847.916	203.529	.000 ^a
	Residual	157905.401	537	294.051		
	Total	217753.317	538			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	372.807	2.417		154.215	.000
	Spr10MCRC	2.399	.168	.524	14.266	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	402.67	18.594	259
Spr10PRF	128.38	39.110	259

Correlations

		MSP Reading	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.521
	Spr10PRF	.521	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10PRF	.000	.
N	MSP Reading	259	259
	Spr10PRF	259	259

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521 ^a	.272	.269	15.896

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24259.326	1	24259.326	96.004	.000 ^a
	Residual	64941.778	257	252.692		
	Total	89201.104	258			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	370.842	3.395		109.218	.000
	Spr10PRF	.248	.025	.521	9.798	.000

Full Seasonal Spring Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	403.24	18.626	230
Spr10Voc	18.35	3.924	230
Spr10MCRC	14.55	3.614	230
Spr10PRF	130.10	38.334	230

Correlations					
		MSP Reading	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.533	.581	.544
	Spr10Voc	.533	1.000	.512	.563
	Spr10MCRC	.581	.512	1.000	.474
	Spr10PRF	.544	.563	.474	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Spr10Voc	.000	.	.000	.000
	Spr10MCRC	.000	.000	.	.000
	Spr10PRF	.000	.000	.000	.
N	MSP Reading	230	230	230	230
	Spr10Voc	230	230	230	230
	Spr10MCRC	230	230	230	230
	Spr10PRF	230	230	230	230

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10MCRC, Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.675 ^a	.456	.449	13.829

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36231.730	3	12077.243	63.155	.000 ^a
	Residual	43218.635	226	191.233		
	Total	79450.365	229			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	342.416	4.719		72.562	.000			
	Spr10Voc	.979	.299	.206	3.273	.001	.533	.213	.161
	Spr10MCRC	1.813	.305	.352	5.945	.000	.581	.368	.292
	Spr10PRF	.127	.030	.261	4.242	.000	.544	.272	.208

Grade 5

Full Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	400.73	25.663	142
Fall09Voc	15.57	4.815	142
Fall09MCRC	13.26	3.219	142
Fall09PRF	131.60	44.392	142
Wint10PRF	142.03	41.693	142
Wint10MCRC	15.03	3.354	142
Spr10Voc	17.75	4.718	142
Spr10MCRC	13.89	3.160	142
Spr10PRF	152.57	39.644	142

Correlations

		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF	Wint10PRF	Wint10MCRC	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.689	.635	.664	.633	.614	.668	.622	.626
	Fall09Voc	.689	1.000	.668	.639	.588	.582	.762	.585	.600
	Fall09MCRC	.635	.668	1.000	.610	.615	.637	.625	.710	.607
	Fall09PRF	.664	.639	.610	1.000	.931	.616	.618	.531	.902
	Wint10PRF	.633	.588	.615	.931	1.000	.586	.551	.503	.922
	Wint10MCRC	.614	.582	.637	.616	.586	1.000	.572	.688	.586
	Spr10Voc	.668	.762	.625	.618	.551	.572	1.000	.581	.566
	Spr10MCRC	.622	.585	.710	.531	.503	.688	.581	1.000	.510
	Spr10PRF	.626	.600	.607	.902	.922	.586	.566	.510	1.000

Note. All values significant, $p < .01$. $n = 142$

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10MCRC, Spr10Voc, Wint10MCRC, Fall09MCRC, Fall09Voc, Fall09PRF, Wint10PRF ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.788 ^a	.620	.597	16.282

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57600.903	8	7200.113	27.161	.000 ^a
	Residual	35257.385	133	265.093		
	Total	92858.289	141			

Coefficients ^a									
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations		
	B	Std. Error	Beta				Zero-order	Partial	Part
1 (Constant)	310.922	7.729			40.226	.000			
Fall09Voc	1.160	.489	.218	2.371	.019		.689	.201	.127
Fall09MCRC	.441	.715	.055	.617	.538		.635	.053	.033
Fall09PRF	.077	.095	.133	.810	.419		.664	.070	.043
Wint10PRF	.071	.108	.115	.653	.515		.633	.057	.035
Wint10MCRC	.696	.629	.091	1.107	.270		.614	.096	.059
Spr10Voc	.953	.481	.175	1.980	.050		.668	.169	.106
Spr10MCRC	1.314	.692	.162	1.898	.060		.622	.162	.101
Spr10PRF	.001	.094	.001	.008	.994		.626	.001	.000

Individual Fall models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	400.67	26.179	146
Fall09Voc	15.55	4.838	146

Correlations

		MSP Reading	Fall09Voc
Pearson Correlation	MSP Reading	1.000	.700
	Fall09Voc	.700	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09Voc	.000	.
N	MSP Reading	146	146
	Fall09Voc	146	146

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.700 ^a	.490	.487	18.752

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48734.550	1	48734.550	138.588	.000 ^a
	Residual	50637.669	144	351.650		
	Total	99372.219	145			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	341.756	5.240		65.225	.000
	Fall09Voc	3.789	.322	.700	11.772	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	400.32	25.916	145
Fall09MCRC	13.22	3.254	145

Correlations

		MSP Reading	Fall09MCRC
Pearson Correlation	MSP Reading	1.000	.647
	Fall09MCRC	.647	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09MCRC	.000	.
N	MSP Reading	145	145
	Fall09MCRC	145	145

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.647 ^a	.418	.414	19.839

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40439.171	1	40439.171	102.750	.000 ^a
	Residual	56280.236	143	393.568		
	Total	96719.407	144			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	332.236	6.916		48.042	.000
	Fall09MCRC	5.150	.508	.647	10.137	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	400.67	26.179	146
Fall09PRF	131.89	44.558	146

Correlations

		MSP Reading	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.670
	Fall09PRF	.670	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09PRF	.000	.
N	MSP Reading	146	146
	Fall09PRF	146	146

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670 ^a	.449	.446	19.491

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44665.680	1	44665.680	117.570	.000 ^a
	Residual	54706.539	144	379.907		
	Total	99372.219	145			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	348.720	5.055		68.979
	Fall09PRF	.394	.036	.670	10.843

Full Seasonal Fall Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	400.32	25.916	145
Fall09Voc	15.50	4.825	145
Fall09MCRC	13.22	3.254	145
Fall09PRF	131.40	44.315	145

Correlations					
		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.696	.647	.663
	Fall09Voc	.696	1.000	.677	.644
	Fall09MCRC	.647	.677	1.000	.617
	Fall09PRF	.663	.644	.617	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Fall09Voc	.000	.	.000	.000
	Fall09MCRC	.000	.000	.	.000
	Fall09PRF	.000	.000	.000	.
N	MSP Reading	145	145	145	145
	Fall09Voc	145	145	145	145
	Fall09MCRC	145	145	145	145
	Fall09PRF	145	145	145	145

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Fall09PRF, Fall09MCRC, Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767 ^a	.588	.579	16.814

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56855.936	3	18951.979	67.035	.000 ^a
	Residual	39863.471	141	282.720		
	Total	96719.407	144			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	324.469	5.949		54.539	.000			
	Fall09Voc	1.890	.428	.352	4.414	.000	.696	.348	.239
	Fall09MCRC	1.785	.618	.224	2.889	.004	.647	.236	.156
	Fall09PRF	.175	.044	.299	3.999	.000	.663	.319	.216

Individual Winter Models PRF

Descriptive Statistics

	Mean	Std. Deviation	N
MSP Reading	400.48	26.863	248
Wint10PRF	141.58	40.380	248

Correlations

		MSP Reading	Wint10PRF
Pearson Correlation	MSP Reading	1.000	.636
	Wint10PRF	.636	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10PRF	.000	.
N	MSP Reading	248	248
	Wint10PRF	248	248

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.405	.403	20.764

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72177.764	1	72177.764	167.412	.000 ^a
	Residual	106060.091	246	431.139		
	Total	178237.855	247			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	340.537	4.816		70.703	.000
	Wint10PRF	.423	.033	.636	12.939	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	403.29	27.615	293
Wint10MCRC	15.62	3.111	293

Correlations

		MSP Reading	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.628
	Wint10MCRC	.628	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10MCRC	.000	.
N	MSP Reading	293	293
	Wint10MCRC	293	293

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.628 ^a	.395	.393	21.518

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87930.042	1	87930.042	189.901	.000 ^a
	Residual	134741.876	291	463.031		
	Total	222671.918	292			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	316.143	6.447		49.034
	Wint10MCRC	5.577	.405	.628	13.780

Full Seasonal Winter Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	400.48	26.863	248
Wint10PRF	141.58	40.380	248
Wint10MCRC	15.41	3.209	248

Correlations				
		MSP Reading	Wint10PRF	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.636	.609
	Wint10PRF	.636	1.000	.539
	Wint10MCRC	.609	.539	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000
	Wint10PRF	.000	.	.000
	Wint10MCRC	.000	.000	.
N	MSP Reading	248	248	248
	Wint10PRF	248	248	248
	Wint10MCRC	248	248	248

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC, Wint10PRF ^a		. Enter

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.710 ^a	.505	.501	18.981

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89970.222	2	44985.111	124.863	.000 ^a
	Residual	88267.633	245	360.276		
	Total	178237.855	247			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations		
		B	Std. Error	Beta				Zero-order	Partial	Part
1	(Constant)	311.202	6.067			51.292	.000			
	Wint10PRF	.289	.036	.434		8.139	.000	.636	.461	.366
	Wint10MCRC	3.139	.447	.375		7.027	.000	.609	.410	.316

Individual Spring Models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	408.55	27.684	571
Spr10Voc	19.25	4.113	571

Correlations

		MSP Reading	Spr10Voc
Pearson Correlation	MSP Reading	1.000	.648
	Spr10Voc	.648	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10Voc	.000	.
N	MSP Reading	571	571
	Spr10Voc	571	571

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.648 ^a	.420	.419	21.105

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	183402.856	1	183402.856	411.768	.000 ^a
	Residual	253434.265	569	445.403		
	Total	436837.121	570			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	324.587	4.231		76.714	.000
	Spr10Voc	4.361	.215	.648	20.292	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	408.93	27.297	676
Spr10MCRC	14.20	3.216	676

Correlations

		MSP Reading	Spr10MCRC
Pearson Correlation	MSP Reading	1.000	.513
	Spr10MCRC	.513	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10MCRC	.000	.
N	MSP Reading	676	676
	Spr10MCRC	676	676

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.513 ^a	.264	.262	23.443

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	132559.489	1	132559.489	241.205	.000 ^a
	Residual	370411.103	674	549.571		
	Total	502970.592	675			

Coefficients ^a									
		Unstandardized		Standardized					
		Coefficients		Coefficients		Correlations			
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	347.028	4.086		84.922	.000			
	Spr10MCRC	4.358	.281	.513	15.531	.000	.513	.513	.513

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	401.32	27.212	228
Spr10PRF	153.33	39.349	228

Correlations

		MSP Reading	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.652
	Spr10PRF	.652	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10PRF	.000	.
N	MSP Reading	228	228
	Spr10PRF	228	228

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.652 ^a	.426	.423	20.669

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71539.181	1	71539.181	167.455	.000 ^a
	Residual	96550.446	226	427.214		
	Total	168089.627	227			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	332.146	5.518		60.192
	Spr10PRF	.451	.035	.652	12.940

Full Seasonal Spring Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	401.52	27.221	226
Spr10Voc	18.35	4.433	226
Spr10MCRC	14.23	3.012	226
Spr10PRF	153.67	39.118	226

Correlations					
		MSP Reading	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.643	.566	.650
	Spr10Voc	.643	1.000	.612	.571
	Spr10MCRC	.566	.612	1.000	.509
	Spr10PRF	.650	.571	.509	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Spr10Voc	.000	.	.000	.000
	Spr10MCRC	.000	.000	.	.000
	Spr10PRF	.000	.000	.000	.
N	MSP Reading	226	226	226	226
	Spr10Voc	226	226	226	226
	Spr10MCRC	226	226	226	226
	Spr10PRF	226	226	226	226

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10MCRC, Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742 ^a	.551	.545	18.366

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91842.048	3	30614.016	90.757	.000 ^a
	Residual	74884.341	222	337.317		
	Total	166726.389	225			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	302.293	6.412		47.146	.000			
	Spr10Voc	1.953	.378	.318	5.170	.000	.643	.328	.233
	Spr10MCRC	1.626	.530	.180	3.067	.002	.566	.202	.138
	Spr10PRF	.262	.039	.376	6.660	.000	.650	.408	.300

Grade 6

Note. Full model could not be computed.

Individual Fall models

Voc

Descriptive Statistics

	Mean	Std. Deviation	N
MSP Reading	399.77	19.648	232
Fall09Voc	14.44	4.158	232

Correlations

		MSP Reading	Fall09Voc
Pearson Correlation	MSP Reading	1.000	.496
	Fall09Voc	.496	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09Voc	.000	.
N	MSP Reading	232	232
	Fall09Voc	232	232

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496 ^a	.246	.243	17.098

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21934.496	1	21934.496	75.030	.000 ^a
	Residual	67238.936	230	292.343		
	Total	89173.431	231			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	365.915	4.066		89.991	.000
	Fall09Voc	2.344	.271	.496	8.662	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	399.92	19.392	233
Fall09MCRC	14.01	2.924	233

Correlations

		MSP Reading	Fall09MCRC
Pearson Correlation	MSP Reading	1.000	.595
	Fall09MCRC	.595	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09MCRC	.000	.
N	MSP Reading	233	233
	Fall09MCRC	233	233

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.595 ^a	.354	.351	15.621

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30871.653	1	30871.653	126.510	.000 ^a
	Residual	56369.798	231	244.025		
	Total	87241.451	232			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	344.659	5.018		68.679
	Fall09MCRC	3.945	.351	.595	11.248

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	399.88	19.603	231
Fall09PRF	145.27	31.594	231

Correlations

		MSP Reading	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.482
	Fall09PRF	.482	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09PRF	.000	.
N	MSP Reading	231	231
	Fall09PRF	231	231

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.482 ^a	.233	.229	17.211

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20549.072	1	20549.072	69.373	.000 ^a
	Residual	67832.772	229	296.213		
	Total	88381.844	230			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	356.422	5.340		66.751
	Fall09PRF	.299	.036	.482	8.329

Full Seasonal Fall Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	400.13	19.475	228
Fall09Voc	14.49	4.128	228
Fall09MCRC	14.07	2.919	228
Fall09PRF	145.69	31.589	228

Correlations					
		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.483	.591	.478
	Fall09Voc	.483	1.000	.449	.467
	Fall09MCRC	.591	.449	1.000	.445
	Fall09PRF	.478	.467	.445	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Fall09Voc	.000	.	.000	.000
	Fall09MCRC	.000	.000	.	.000
	Fall09PRF	.000	.000	.000	.
N	MSP Reading	228	228	228	228
	Fall09Voc	228	228	228	228
	Fall09MCRC	228	228	228	228
	Fall09PRF	228	228	228	228

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Fall09PRF, Fall09MCRC, Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661 ^a	.436	.429	14.718

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37570.486	3	12523.495	57.815	.000 ^a
	Residual	48521.567	224	216.614		
	Total	86092.053	227			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	329.739	5.543		59.492	.000			
	Fall09Voc	.971	.281	.206	3.457	.001	.483	.225	.173
	Fall09MCRC	2.732	.392	.409	6.961	.000	.591	.422	.349
	Fall09PRF	.123	.037	.199	3.352	.001	.478	.219	.168

Individual Winter Models**PRF****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	399.60	19.534	241
Wint10PRF	167.98	35.814	241

Correlations

		MSP Reading	Wint10PRF
Pearson Correlation	MSP Reading	1.000	.491
	Wint10PRF	.491	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10PRF	.000	.
N	MSP Reading	241	241
	Wint10PRF	241	241

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491 ^a	.241	.237	17.058

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22032.943	1	22032.943	75.723	.000 ^a
	Residual	69541.016	239	290.967		
	Total	91573.959	240			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	354.658	5.280		67.170	.000
	Wint10PRF	.268	.031	.491	8.702	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	399.70	19.848	260
Wint10MCRC	13.63	2.994	260

Correlations

		MSP Reading	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.521
	Wint10MCRC	.521	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10MCRC	.000	.
N	MSP Reading	260	260
	Wint10MCRC	260	260

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521 ^a	.271	.268	16.979

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27647.733	1	27647.733	95.903	.000 ^a
	Residual	74378.463	258	288.289		
	Total	102026.196	259			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	352.659	4.918		71.708	.000
	Wint10MCRC	3.450	.352	.521	9.793	.000

Full Seasonal Winter Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	399.53	19.549	240
Wint10PRF	167.73	35.677	240
Wint10MCRC	13.74	2.757	240

Correlations				
		MSP Reading	Wint10PRF	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.488	.494
	Wint10PRF	.488	1.000	.445
	Wint10MCRC	.494	.445	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000
	Wint10PRF	.000	.	.000
	Wint10MCRC	.000	.000	.
N	MSP Reading	240	240	240
	Wint10PRF	240	240	240
	Wint10MCRC	240	240	240

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC, Wint10PRF ^a		. Enter

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.578 ^a	.334	.329	16.017

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30533.638	2	15266.819	59.508	.000 ^a
	Residual	60802.096	237	256.549		
	Total	91335.733	239			

Coefficients ^a									
		Unstandardized Coefficients		Standardized Coefficients		Correlations			
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	335.112	5.999		55.862	.000			
	Wint10PRF	.184	.032	.335	5.660	.000	.488	.345	.300
	Wint10MCRC	2.449	.420	.345	5.836	.000	.494	.354	.309

Individual Spring Models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	402.22	21.297	804
Spr10Voc	15.83	4.174	804

Correlations

		MSP Reading	Spr10Voc
Pearson Correlation	MSP Reading	1.000	.602
	Spr10Voc	.602	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10Voc	.000	.
N	MSP Reading	804	804
	Spr10Voc	804	804

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602 ^a	.362	.361	17.022

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	131855.733	1	131855.733	455.089	.000 ^a
	Residual	232368.611	802	289.736		
	Total	364224.343	803			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	353.632	2.355		150.147	.000
	Spr10Voc	3.070	.144	.602	21.333	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	402.42	21.241	897
Spr10MCRC	14.29	3.436	897

Correlations

		MSP Reading	Spr10MCRC
Pearson Correlation	MSP Reading	1.000	.574
	Spr10MCRC	.574	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10MCRC	.000	.
N	MSP Reading	897	897
	Spr10MCRC	897	897

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.574 ^a	.330	.329	17.397

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	133395.703	1	133395.703	440.750	.000 ^a
	Residual	270877.316	895	302.656		
	Total	404273.019	896			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	351.668	2.486		141.435
	Spr10MCRC	3.551	.169	.574	20.994

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	394.33	17.976	61
Spr10PRF	171.90	51.158	61

Correlations

		MSP Reading	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.542
	Spr10PRF	.542	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10PRF	.000	.
N	MSP Reading	61	61
	Spr10PRF	61	61

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542 ^a	.294	.282	15.235

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5692.636	1	5692.636	24.525	.000 ^a
	Residual	13694.807	59	232.115		
	Total	19387.443	60			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	361.597	6.891		52.474	.000
	Spr10PRF	.190	.038	.542	4.952	.000

Full Seasonal Spring Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	394.77	18.153	57
Spr10Voc	15.19	4.042	57
Spr10MCRC	12.49	3.501	57
Spr10PRF	174.35	51.400	57

Correlations					
		MSP Reading	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.513	.709	.538
	Spr10Voc	.513	1.000	.492	.165
	Spr10MCRC	.709	.492	1.000	.586
	Spr10PRF	.538	.165	.586	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Spr10Voc	.000	.	.000	.110
	Spr10MCRC	.000	.000	.	.000
	Spr10PRF	.000	.110	.000	.
N	MSP Reading	57	57	57	57
	Spr10Voc	57	57	57	57
	Spr10MCRC	57	57	57	57
	Spr10PRF	57	57	57	57

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10Voc, Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.757 ^a	.574	.550	12.183

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10587.374	3	3529.125	23.777	.000 ^a
	Residual	7866.662	53	148.428		
	Total	18454.035	56			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	334.001	7.836		42.622	.000			
	Spr10Voc	1.147	.470	.255	2.442	.018	.513	.318	.219
	Spr10MCRC	2.312	.660	.446	3.502	.001	.709	.433	.314
	Spr10PRF	.083	.040	.235	2.090	.041	.538	.276	.187

Grade 7

Full Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	408.30	21.082	171
Fall09Voc	13.53	4.092	171
Fall09MCRC	13.64	3.177	171
Fall09PRF	149.30	29.520	171
Wint10PRF	167.85	36.884	171
Wint10MCRC	15.41	2.141	171
Spr10Voc	14.68	3.752	171
Spr10MCRC	12.65	2.783	171
Spr10PRF	156.12	34.684	171

Correlations

		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF	Wint10PRF	Wint10MCRC	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.592	.541	.479	.502	.437	.564	.436	.502
	Fall09Voc	.592	1.000	.448	.490	.541	.366	.670	.386	.537
	Fall09MCRC	.541	.448	1.000	.406	.446	.431	.426	.481	.400
	Fall09PRF	.479	.490	.406	1.000	.810	.241	.428	.320	.822
	Wint10PRF	.502	.541	.446	.810	1.000	.340	.483	.391	.823
	Wint10MCRC	.437	.366	.431	.241	.340	1.000	.204	.349	.298
	Spr10Voc	.564	.670	.426	.428	.483	.204	1.000	.324	.442
	Spr10MCRC	.436	.386	.481	.320	.391	.349	.324	1.000	.361
	Spr10PRF	.502	.537	.400	.822	.823	.298	.442	.361	1.000

Note. All values significant, $p < .01$. $n = 171$

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Wint10MCRC, Spr10MCRC, Spr10Voc, Fall09MCRC, Fall09Voc, Fall09PRF, Wint10PRF ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727 ^a	.528	.505	14.837

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39892.820	8	4986.603	22.652	.000 ^a
	Residual	35663.367	162	220.144		
	Total	75556.187	170			

Coefficients ^a									
		Unstandardized		Standardized					
		Coefficients		Coefficients		Correlations			
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	308.445	9.739		31.672	.000			
	Fall09Voc	.877	.419	.170	2.094	.038	.592	.162	.113
	Fall09MCRC	1.198	.463	.181	2.589	.011	.541	.199	.140
	Fall09PRF	.076	.075	.106	1.012	.313	.479	.079	.055
	Wint10PRF	-.032	.062	-.055	-.508	.612	.502	-.040	-.027
	Wint10MCRC	1.751	.622	.178	2.816	.005	.437	.216	.152
	Spr10Voc	1.361	.426	.242	3.195	.002	.564	.243	.172
	Spr10MCRC	.706	.488	.093	1.446	.150	.436	.113	.078
	Spr10PRF	.062	.066	.103	.940	.349	.502	.074	.051

Individual Fall models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.79	22.977	210
Fall09Voc	13.30	4.315	210

Correlations

		MSP Reading	Fall09Voc
Pearson Correlation	MSP Reading	1.000	.631
	Fall09Voc	.631	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09Voc	.000	.
N	MSP Reading	210	210
	Fall09Voc	210	210

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631 ^a	.398	.395	17.871

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43908.098	1	43908.098	137.484	.000 ^a
	Residual	66428.683	208	319.369		
	Total	110336.781	209			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	362.133	4.003		90.458	.000
	Fall09Voc	3.359	.286	.631	11.725	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.79	22.970	211
Fall09MCRC	13.46	3.271	211

Correlations

		MSP Reading	Fall09MCRC
Pearson Correlation	MSP Reading	1.000	.609
	Fall09MCRC	.609	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09MCRC	.000	.
N	MSP Reading	211	211
	Fall09MCRC	211	211

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.609 ^a	.370	.367	18.270

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41035.995	1	41035.995	122.938	.000 ^a
	Residual	69762.830	209	333.793		
	Total	110798.825	210			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	349.264	5.339		65.422	.000
	Fall09MCRC	4.274	.385	.609	11.088	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.83	22.176	198
Fall09PRF	147.96	29.747	198

Correlations

		MSP Reading	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.516
	Fall09PRF	.516	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09PRF	.000	.
N	MSP Reading	198	198
	Fall09PRF	198	198

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.516 ^a	.266	.263	19.042

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25807.666	1	25807.666	71.175	.000 ^a
	Residual	71068.495	196	362.594		
	Total	96876.162	197			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	349.896	6.883		50.837	.000
	Fall09PRF	.385	.046	.516	8.437	.000

Full Seasonal Fall Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	406.82	22.264	196
Fall09Voc	13.28	4.236	196
Fall09MCRC	13.44	3.287	196
Fall09PRF	148.24	29.627	196

Correlations					
		MSP Reading	Fall09Voc	Fall09MCRC	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.618	.591	.517
	Fall09Voc	.618	1.000	.487	.496
	Fall09MCRC	.591	.487	1.000	.457
	Fall09PRF	.517	.496	.457	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Fall09Voc	.000	.	.000	.000
	Fall09MCRC	.000	.000	.	.000
	Fall09PRF	.000	.000	.000	.
N	MSP Reading	196	196	196	196
	Fall09Voc	196	196	196	196
	Fall09MCRC	196	196	196	196
	Fall09PRF	196	196	196	196

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Fall09PRF, Fall09MCRC, Fall09Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719 ^a	.516	.509	15.602

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49917.291	3	16639.097	68.354	.000 ^a
	Residual	46737.459	192	243.424		
	Total	96654.750	195			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations		
		B	Std. Error	Beta				Zero-order	Partial	Part
1	(Constant)	330.717	6.136			53.902	.000			
	Fall09Voc	1.926	.323	.366		5.967	.000	.618	.395	.299
	Fall09MCRC	2.223	.406	.328		5.476	.000	.591	.368	.275
	Fall09PRF	.139	.045	.185		3.077	.002	.517	.217	.154

Individual Winter Models**PRF****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	403.30	22.161	428
Wint10PRF	169.71	39.418	428

Correlations

		MSP Reading	Wint10PRF
Pearson Correlation	MSP Reading	1.000	.521
	Wint10PRF	.521	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10PRF	.000	.
N	MSP Reading	428	428
	Wint10PRF	428	428

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521 ^a	.271	.270	18.940

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56881.977	1	56881.977	158.566	.000 ^a
	Residual	152818.142	426	358.728		
	Total	209700.119	427			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	353.610	4.051		87.289	.000
	Wint10PRF	.293	.023	.521	12.592	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	407.86	24.796	339
Wint10MCRC	14.99	2.900	339

Correlations

		MSP Reading	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.506
	Wint10MCRC	.506	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10MCRC	.000	.
N	MSP Reading	339	339
	Wint10MCRC	339	339

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.506 ^a	.256	.253	21.425

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53136.340	1	53136.340	115.762	.000 ^a
	Residual	154687.418	337	459.013		
	Total	207823.758	338			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	343.030	6.137		55.893
	Wint10MCRC	4.324	.402	.506	10.759

Full Seasonal Winter Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	407.13	22.842	206
Wint10PRF	165.02	37.624	206
Wint10MCRC	15.08	2.733	206

Correlations				
		MSP Reading	Wint10PRF	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.541	.409
	Wint10PRF	.541	1.000	.422
	Wint10MCRC	.409	.422	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000
	Wint10PRF	.000	.	.000
	Wint10MCRC	.000	.000	.
N	MSP Reading	206	206	206
	Wint10PRF	206	206	206
	Wint10MCRC	206	206	206

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC, Wint10PRF ^a		. Enter

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.577 ^a	.333	.326	18.750

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35590.410	2	17795.205	50.617	.000 ^a
	Residual	71368.309	203	351.568		
	Total	106958.718	205			

Coefficients^a

		Unstandardized		Standardized					
		Coefficients		Coefficients		Correlations			
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	334.502	7.921		42.227	.000			
	Wint10PRF	.272	.038	.449	7.097	.000	.541	.446	.407
	Wint10MCRC	1.834	.529	.219	3.470	.001	.409	.237	.199

Individual Spring Models**Voc****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	405.25	23.206	809
Spr10Voc	14.61	4.108	809

Correlations

		MSP Reading	Spr10Voc
Pearson Correlation	MSP Reading	1.000	.488
	Spr10Voc	.488	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10Voc	.000	.
N	MSP Reading	809	809
	Spr10Voc	809	809

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10Voc ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.488 ^a	.238	.237	20.268

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	103619.712	1	103619.712	252.252	.000 ^a
	Residual	331498.844	807	410.779		
	Total	435118.556	808			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	364.958	2.635		138.508	.000
	Spr10Voc	2.757	.174	.488	15.882	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.46	23.543	1063
Spr10MCRC	12.17	3.017	1063

Correlations

		MSP Reading	Spr10MCRC
Pearson Correlation	MSP Reading	1.000	.552
	Spr10MCRC	.552	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10MCRC	.000	.
N	MSP Reading	1063	1063
	Spr10MCRC	1063	1063

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552 ^a	.305	.304	19.638

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	179434.888	1	179434.888	465.263	.000 ^a
	Residual	409189.082	1061	385.664		
	Total	588623.970	1062			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	354.009	2.505		141.314	.000
	Spr10MCRC	4.308	.200	.552	21.570	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	405.97	21.049	259
Spr10PRF	151.17	34.848	259

Correlations

		MSP Reading	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.472
	Spr10PRF	.472	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10PRF	.000	.
N	MSP Reading	259	259
	Spr10PRF	259	259

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.472 ^a	.223	.220	18.590

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25487.735	1	25487.735	73.751	.000 ^a
	Residual	88817.076	257	345.592		
	Total	114304.811	258			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	362.857	5.152		70.434
	Spr10PRF	.285	.033	.472	8.588

Full Seasonal Spring Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	407.83	21.525	221
Spr10Voc	14.42	4.137	221
Spr10MCRC	12.42	2.868	221
Spr10PRF	153.29	35.305	221

Correlations					
		MSP Reading	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.567	.495	.508
	Spr10Voc	.567	1.000	.387	.502
	Spr10MCRC	.495	.387	1.000	.396
	Spr10PRF	.508	.502	.396	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000	.000
	Spr10Voc	.000	.	.000	.000
	Spr10MCRC	.000	.000	.	.000
	Spr10PRF	.000	.000	.000	.
N	MSP Reading	221	221	221	221
	Spr10Voc	221	221	221	221
	Spr10MCRC	221	221	221	221
	Spr10PRF	221	221	221	221

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10MCRC, Spr10Voc ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668 ^a	.447	.439	16.124

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45513.180	3	15171.060	58.351	.000 ^a
	Residual	56419.626	217	259.998		
	Total	101932.805	220			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	335.364	5.821		57.616	.000			
	Spr10Voc	1.819	.313	.350	5.814	.000	.567	.367	.294
	Spr10MCRC	2.027	.425	.270	4.771	.000	.495	.308	.241
	Spr10PRF	.137	.037	.225	3.735	.000	.508	.246	.189

Grade 8

Note. No valid cases for the Fall 09 MCRC or Fall 09 Voc. Full model could not be computed.

Individual Fall models**PRF****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.39	29.737	486
Fall09PRF	144.38	41.654	486

Correlations

		MSP Reading	Fall09PRF
Pearson Correlation	MSP Reading	1.000	.603
	Fall09PRF	.603	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Fall09PRF	.000	.
N	MSP Reading	486	486
	Fall09PRF	486	486

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Fall09PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603 ^a	.363	.362	23.754

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	155781.371	1	155781.371	276.088	.000 ^a
	Residual	273094.349	484	564.245		
	Total	428875.720	485			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	344.271	3.891		88.484	.000
	Fall09PRF	.430	.026	.603	16.616	.000

Individual Winter Models**PRF****Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.72	29.089	508
Wint10PRF	154.78	41.628	508

Correlations

		MSP Reading	Wint10PRF
Pearson Correlation	MSP Reading	1.000	.585
	Wint10PRF	.585	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10PRF	.000	.
N	MSP Reading	508	508
	Wint10PRF	508	508

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.585 ^a	.343	.341	23.607

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147006.420	1	147006.420	263.782	.000 ^a
	Residual	281994.997	506	557.302		
	Total	429001.417	507			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	343.410	4.037		85.074	.000
	Wint10PRF	.409	.025	.585	16.241	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	403.47	42.883	542
Wint10MCRC	12.23	3.594	542

Correlations

		MSP Reading	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.596
	Wint10MCRC	.596	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Wint10MCRC	.000	.
N	MSP Reading	542	542
	Wint10MCRC	542	542

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.596 ^a	.355	.354	34.461

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	353560.227	1	353560.227	297.711	.000 ^a
	Residual	641300.739	540	1187.594		
	Total	994860.967	541			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	316.460	5.255		60.215
	Wint10MCRC	7.114	.412	.596	17.254

Full Seasonal Winter Model**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	406.87	29.398	490
Wint10PRF	155.37	40.860	490
Wint10MCRC	12.45	3.254	490

Correlations

		MSP Reading	Wint10PRF	Wint10MCRC
Pearson Correlation	MSP Reading	1.000	.589	.631
	Wint10PRF	.589	1.000	.505
	Wint10MCRC	.631	.505	1.000
Sig. (1-tailed)	MSP Reading	.	.000	.000
	Wint10PRF	.000	.	.000
	Wint10MCRC	.000	.000	.
N	MSP Reading	490	490	490
	Wint10PRF	490	490	490
	Wint10MCRC	490	490	490

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Wint10MCRC, Wint10PRF ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.705 ^a	.496	.494	20.904

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	209803.007	2	104901.504	240.058	.000 ^a
	Residual	212811.148	487	436.984		
	Total	422614.155	489			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	315.931	4.263		74.115	.000			
	Wint10PRF	.261	.027	.362	9.730	.000	.589	.403	.313
	Wint10MCRC	4.051	.337	.448	12.035	.000	.631	.479	.387

Individual Spring Models**Voc**

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	413.61	37.172	323
Spr10Voc	15.81	4.834	323

Correlations			
		MSP Reading	Spr10Voc
Pearson Correlation	MSP Reading	1.000	.355
	Spr10Voc	.355	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10Voc	.000	.
N	MSP Reading	323	323
	Spr10Voc	323	323

Variables Entered/Removed^b			
Model	Variables Entered	Variables Removed	Method
1	Spr10Voc ^a	.	Enter

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.355 ^a	.126	.124	34.799

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56207.604	1	56207.604	46.415	.000 ^a
	Residual	388721.244	321	1210.970		
	Total	444928.848	322			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	370.403	6.631		55.860	.000
	Spr10Voc	2.733	.401	.355	6.813	.000

MCRC**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	411.01	32.178	860
Spr10MCRC	12.74	3.669	860

Correlations

		MSP Reading	Spr10MCRC
Pearson Correlation	MSP Reading	1.000	.517
	Spr10MCRC	.517	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10MCRC	.000	.
N	MSP Reading	860	860
	Spr10MCRC	860	860

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10MCRC ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517 ^a	.267	.266	27.562

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	237668.271	1	237668.271	312.870	.000 ^a
	Residual	651769.561	858	759.638		
	Total	889437.833	859			

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	353.239	3.399		103.930	.000
	Spr10MCRC	4.534	.256	.517	17.688	.000

PRF**Descriptive Statistics**

	Mean	Std. Deviation	N
MSP Reading	407.31	28.746	510
Spr10PRF	168.95	36.963	510

Correlations

		MSP Reading	Spr10PRF
Pearson Correlation	MSP Reading	1.000	.573
	Spr10PRF	.573	1.000
Sig. (1-tailed)	MSP Reading	.	.000
	Spr10PRF	.000	.
N	MSP Reading	510	510
	Spr10PRF	510	510

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF ^a	.	Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.573 ^a	.329	.327	23.577

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138209.758	1	138209.758	248.638	.000 ^a
	Residual	282380.911	508	555.868		
	Total	420590.669	509			

Coefficients ^a					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	331.987	4.889		67.898
	Spr10PRF	.446	.028	.573	15.768

.000

Full Seasonal Spring Model

Descriptive Statistics			
	Mean	Std. Deviation	N
MSP Reading	388.67	30.022	12
Spr10Voc	5.83	5.024	12
Spr10MCRC	10.33	3.229	12
Spr10PRF	150.33	44.201	12

Correlations					
		MSP Reading	Spr10Voc	Spr10MCRC	Spr10PRF
Pearson Correlation	MSP Reading	1.000	-.088	.834	.237
	Spr10Voc	-.088	1.000	-.310	-.154
	Spr10MCRC	.834	-.310	1.000	.304
	Spr10PRF	.237	-.154	.304	1.000
Sig. (1-tailed)	MSP Reading	.	.392	.000	.229
	Spr10Voc	.392	.	.163	.316
	Spr10MCRC	.000	.163	.	.169
	Spr10PRF	.229	.316	.169	.
N	MSP Reading	12	12	12	12
	Spr10Voc	12	12	12	12
	Spr10MCRC	12	12	12	12
	Spr10PRF	12	12	12	12

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Spr10PRF, Spr10Voc, Spr10MCRC ^a		. Enter

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853 ^a	.728	.626	18.368

ANOVA^b

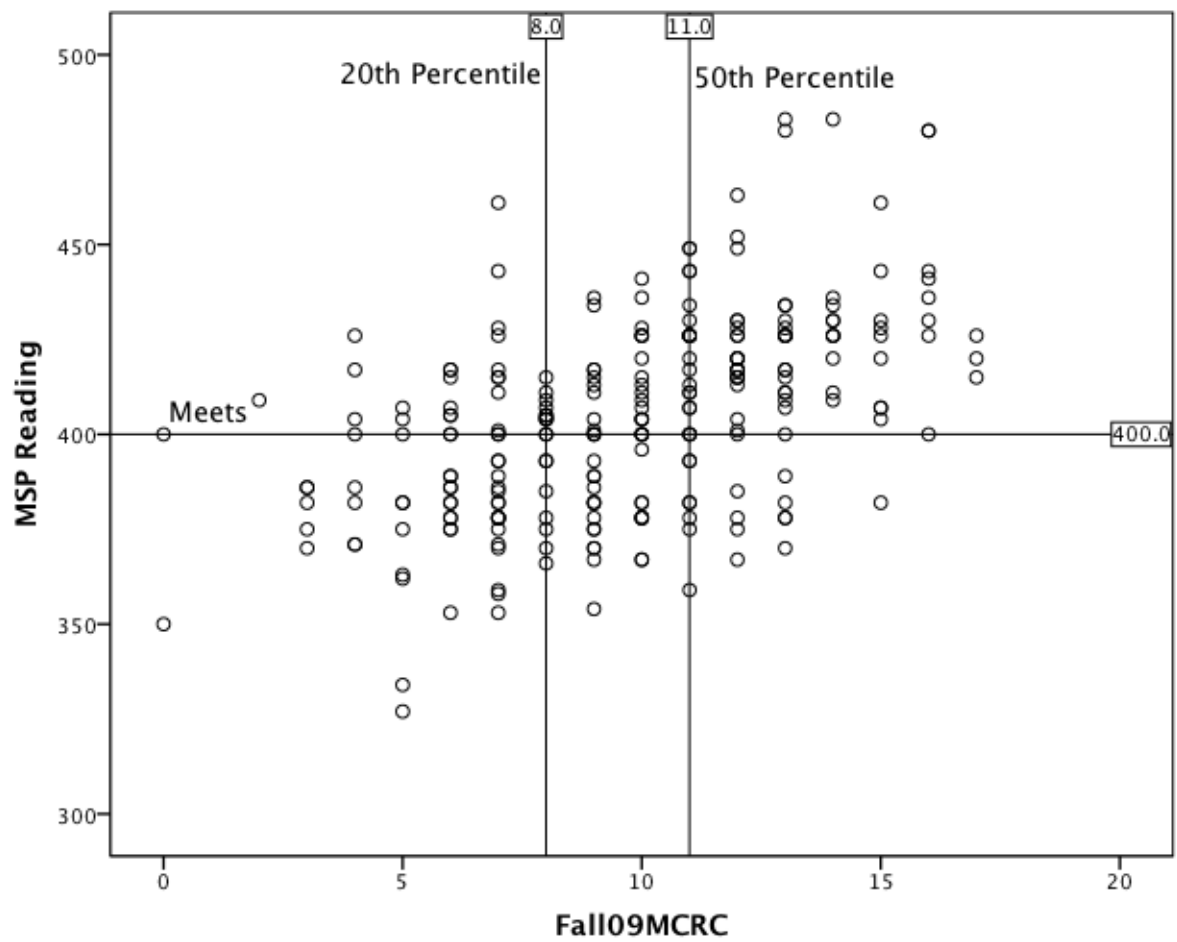
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7215.726	3	2405.242	7.129	.012 ^a
	Residual	2698.941	8	337.368		
	Total	9914.667	11			

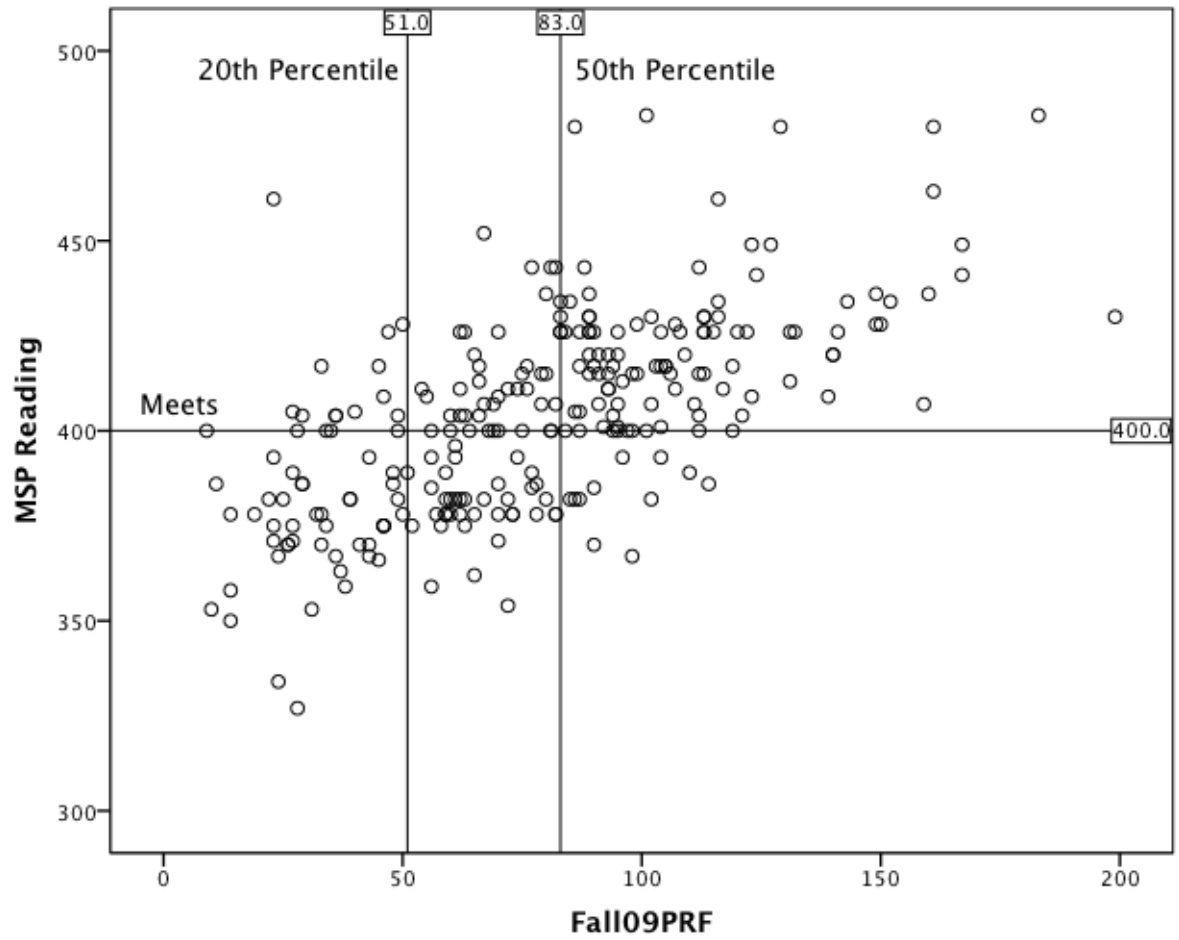
Coefficients^a

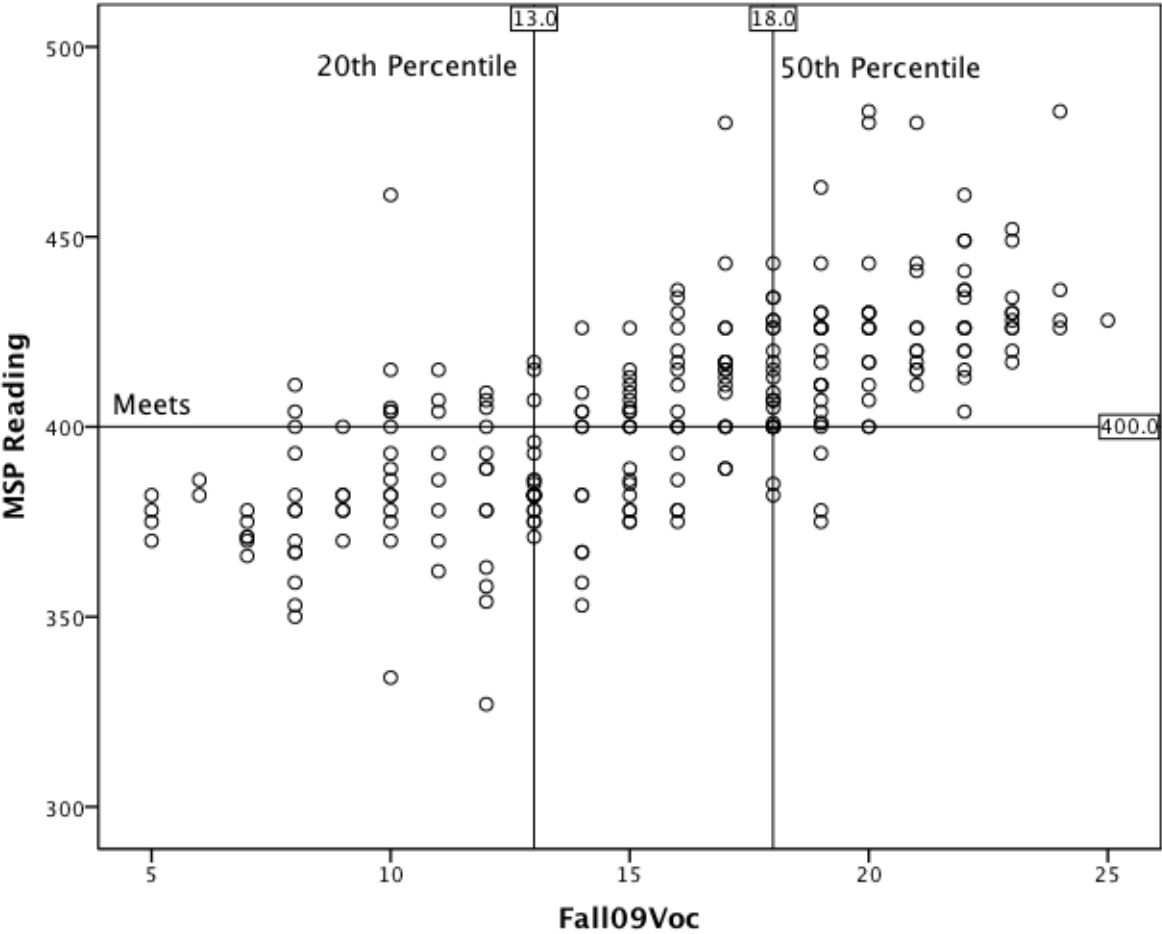
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	296.753	26.913		11.026	.000			
	Spr10Voc	1.123	1.162	.188	.967	.362	-.088	.323	.178
	Spr10MCRC	8.313	1.875	.894	4.433	.002	.834	.843	.818
	Spr10PRF	-.004	.132	-.005	-.027	.979	.237	-.010	-.005

Grade 3

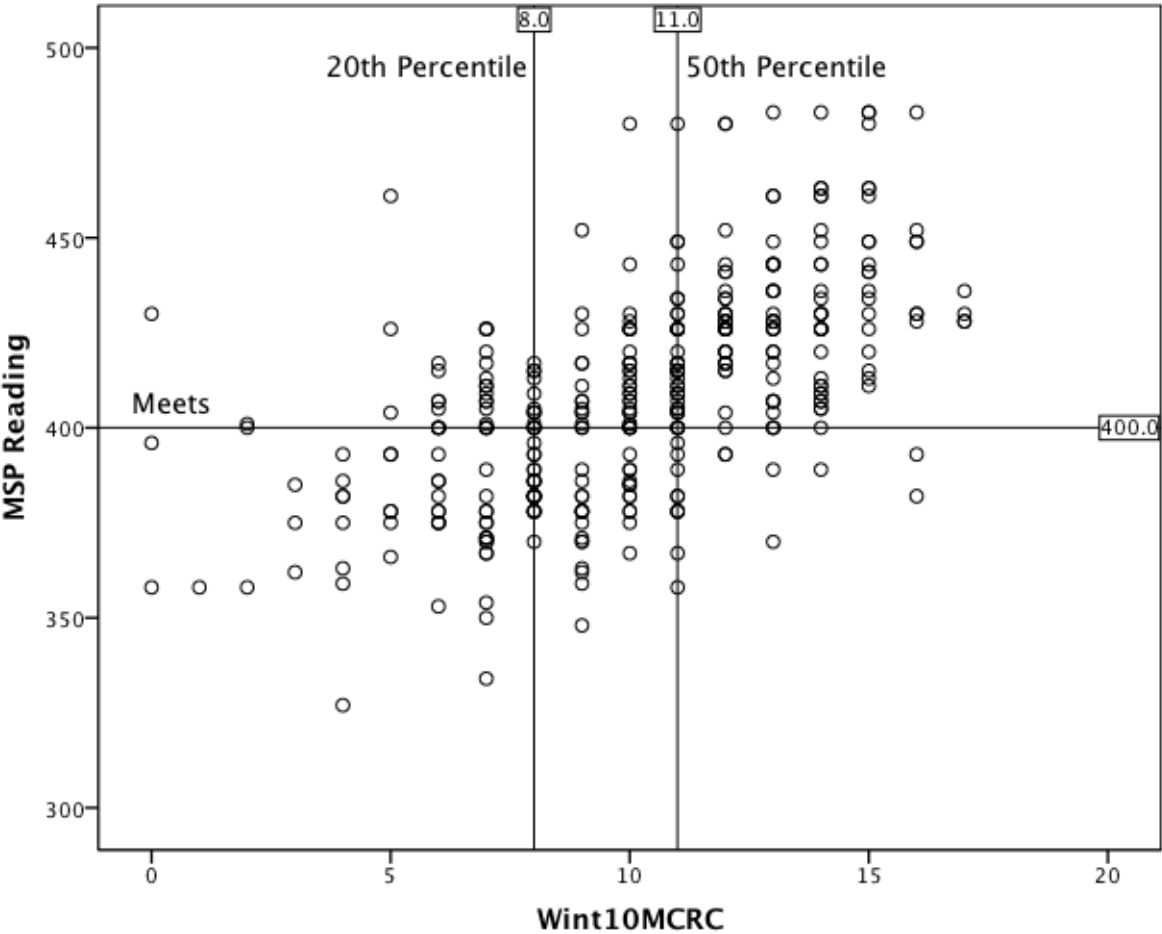
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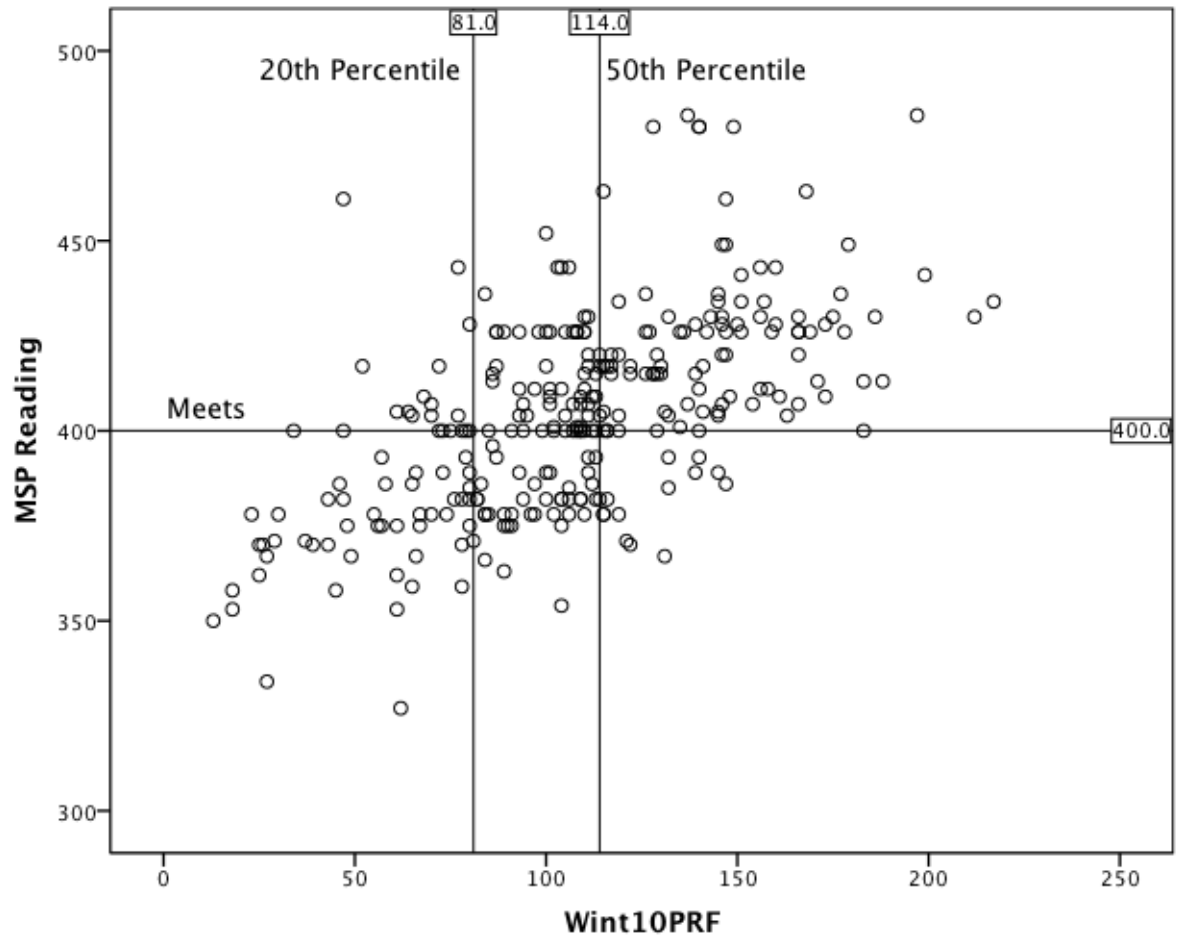




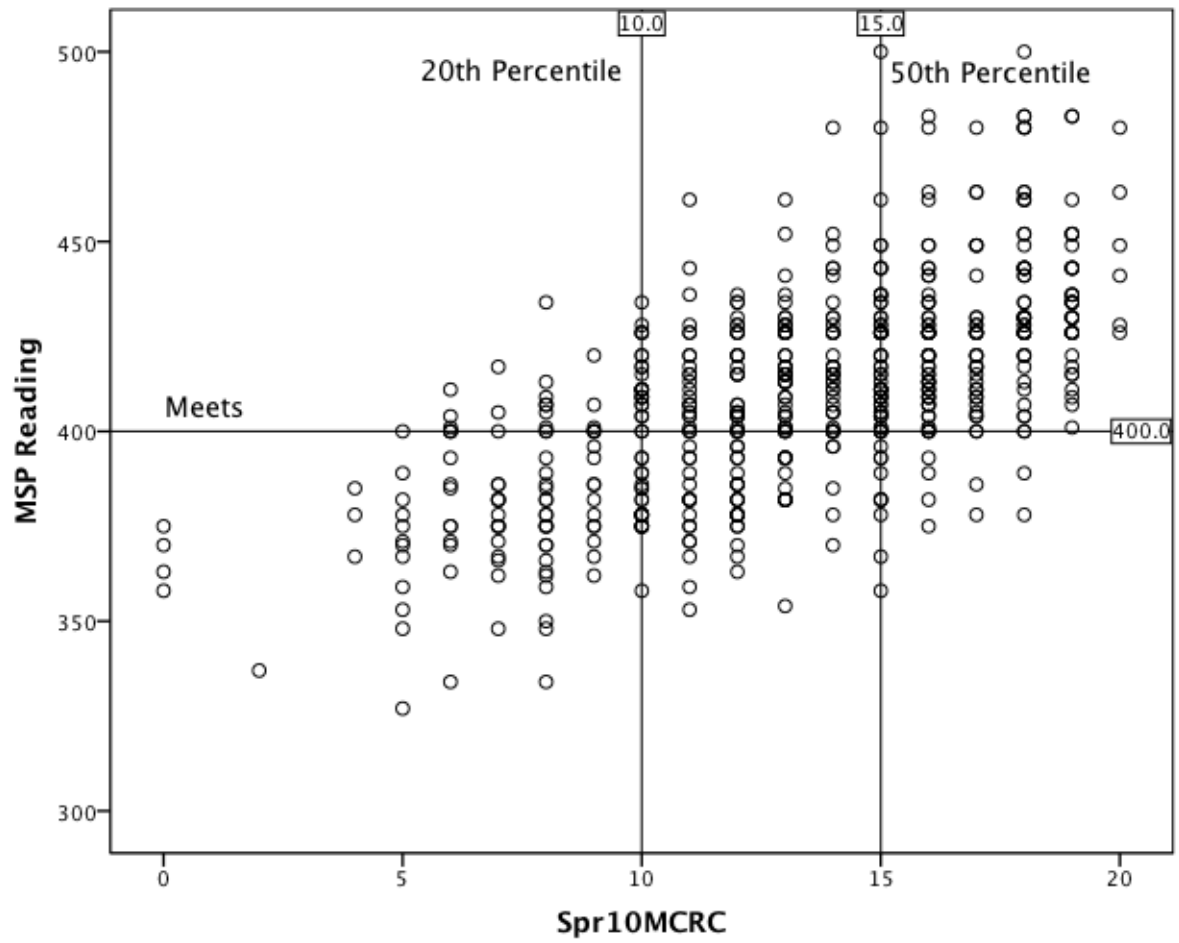


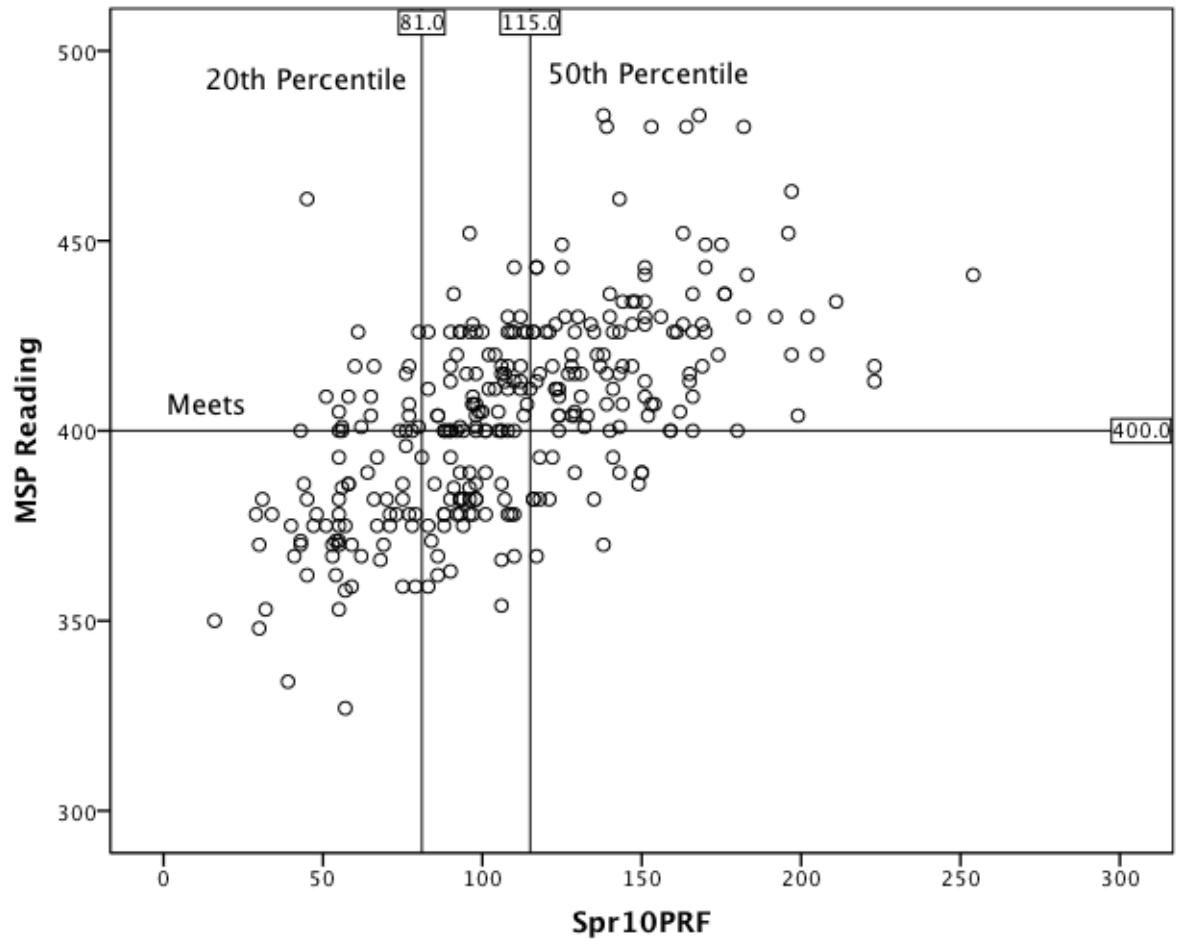
Winter

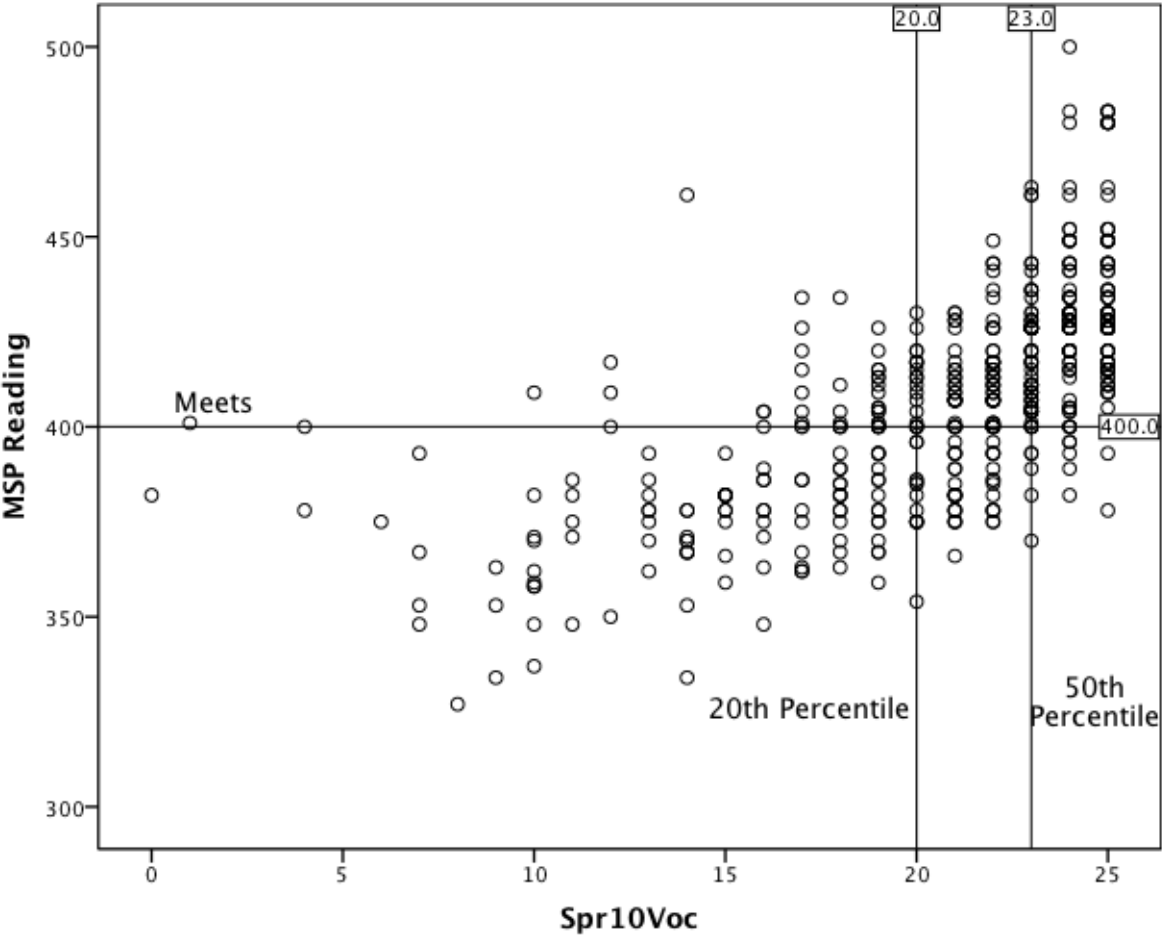




Spring

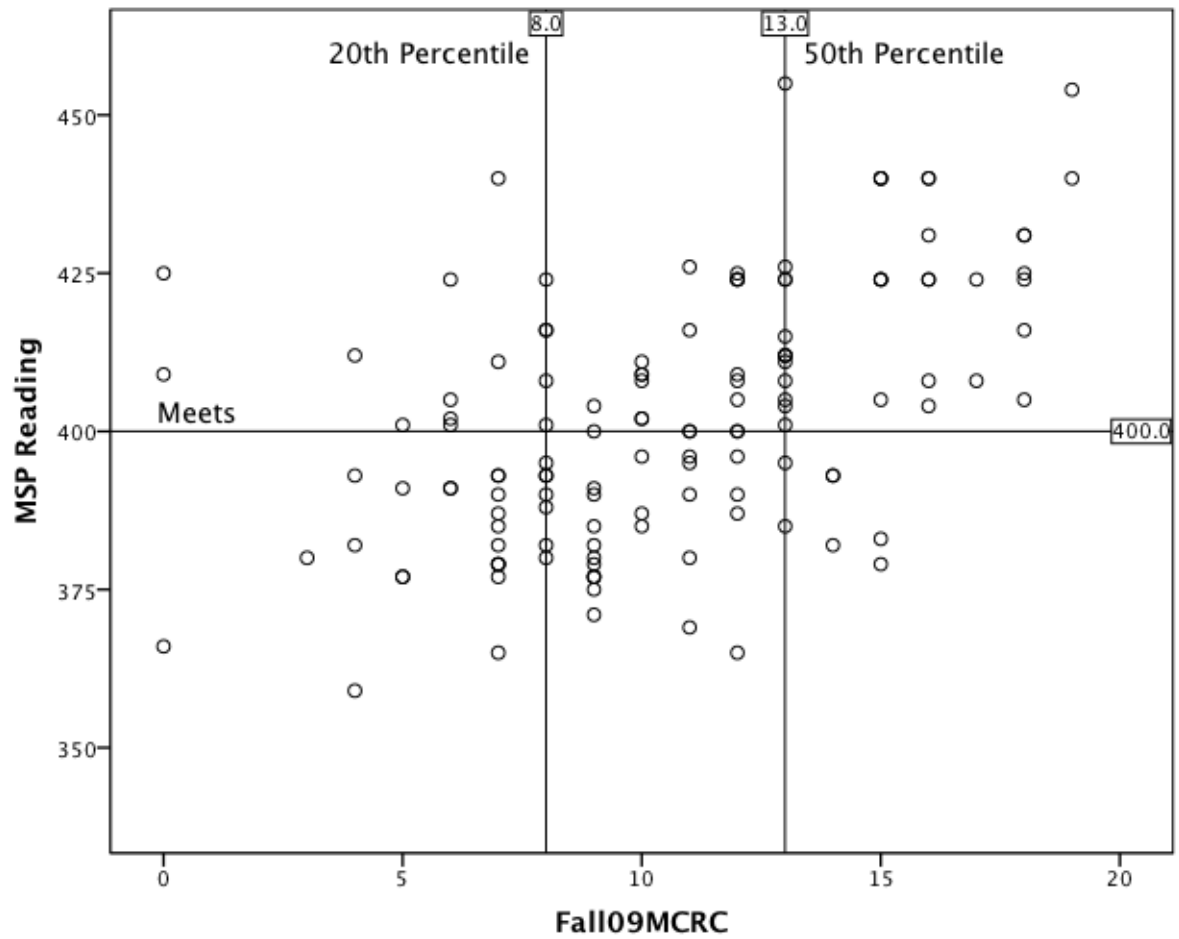


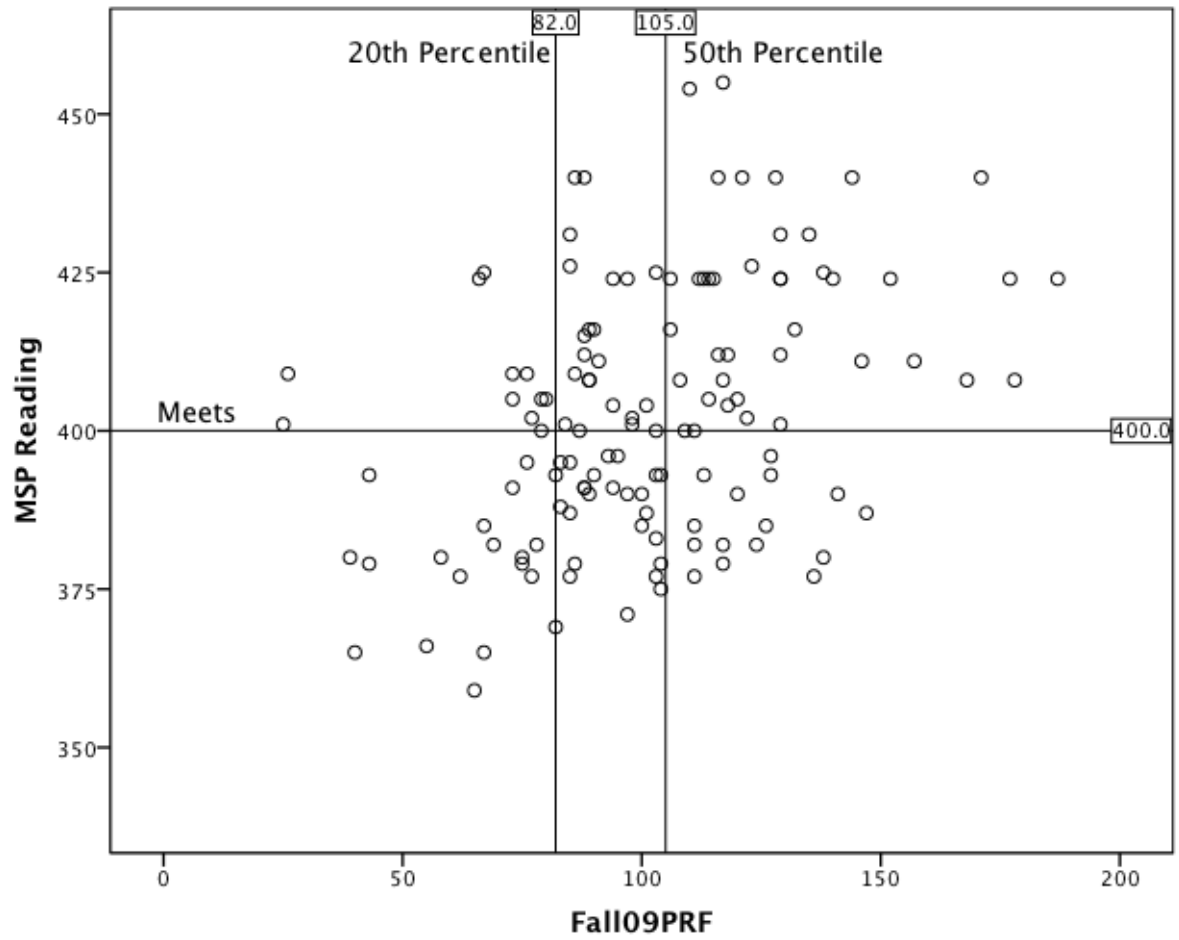


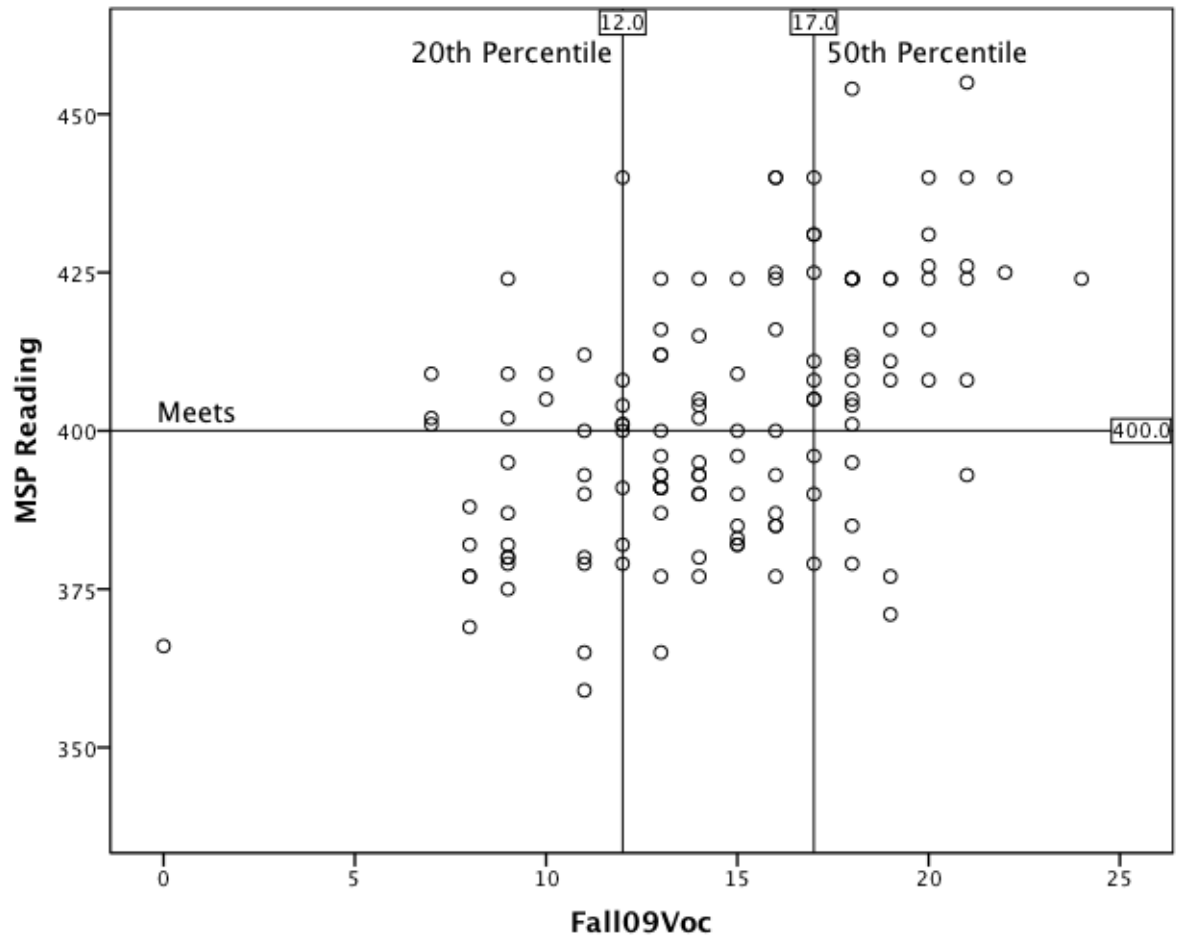


Grade 4

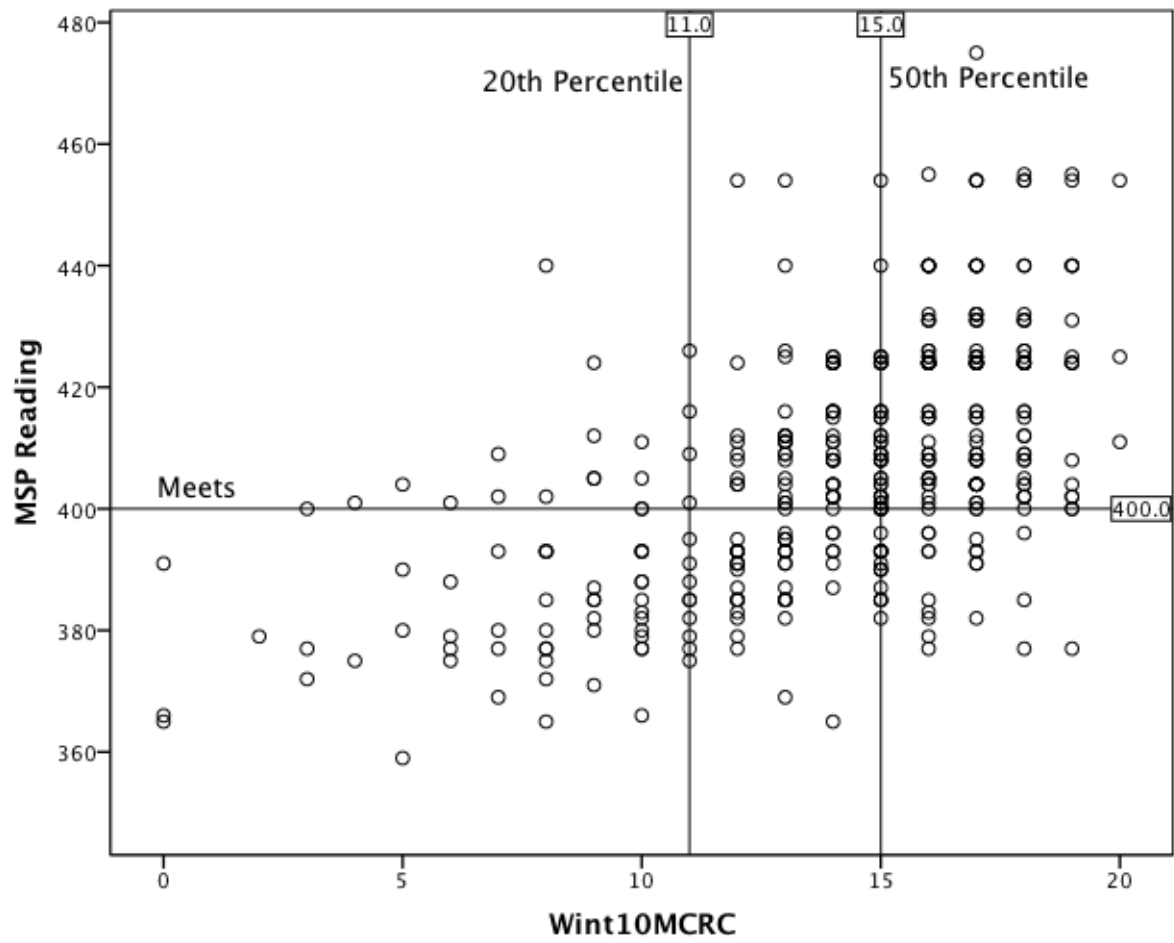
Fall

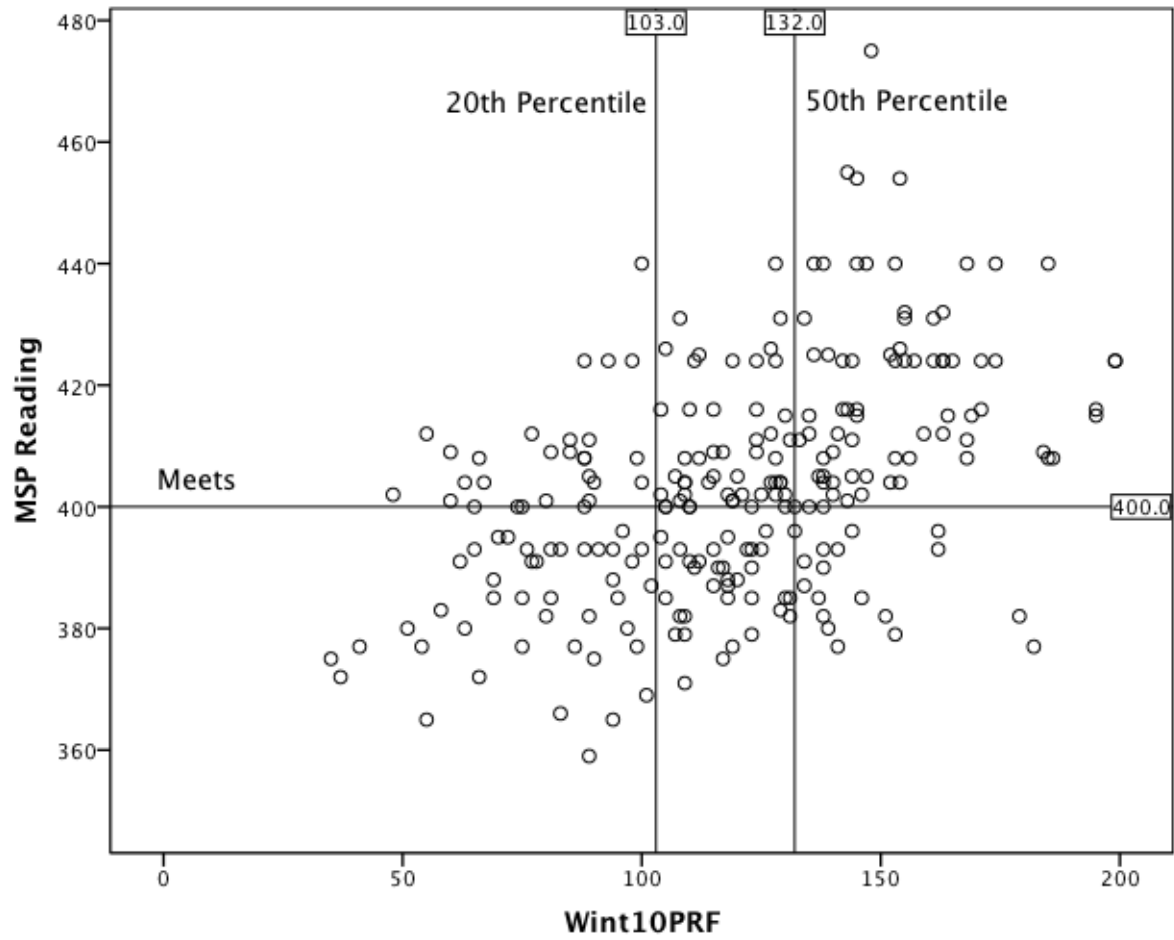




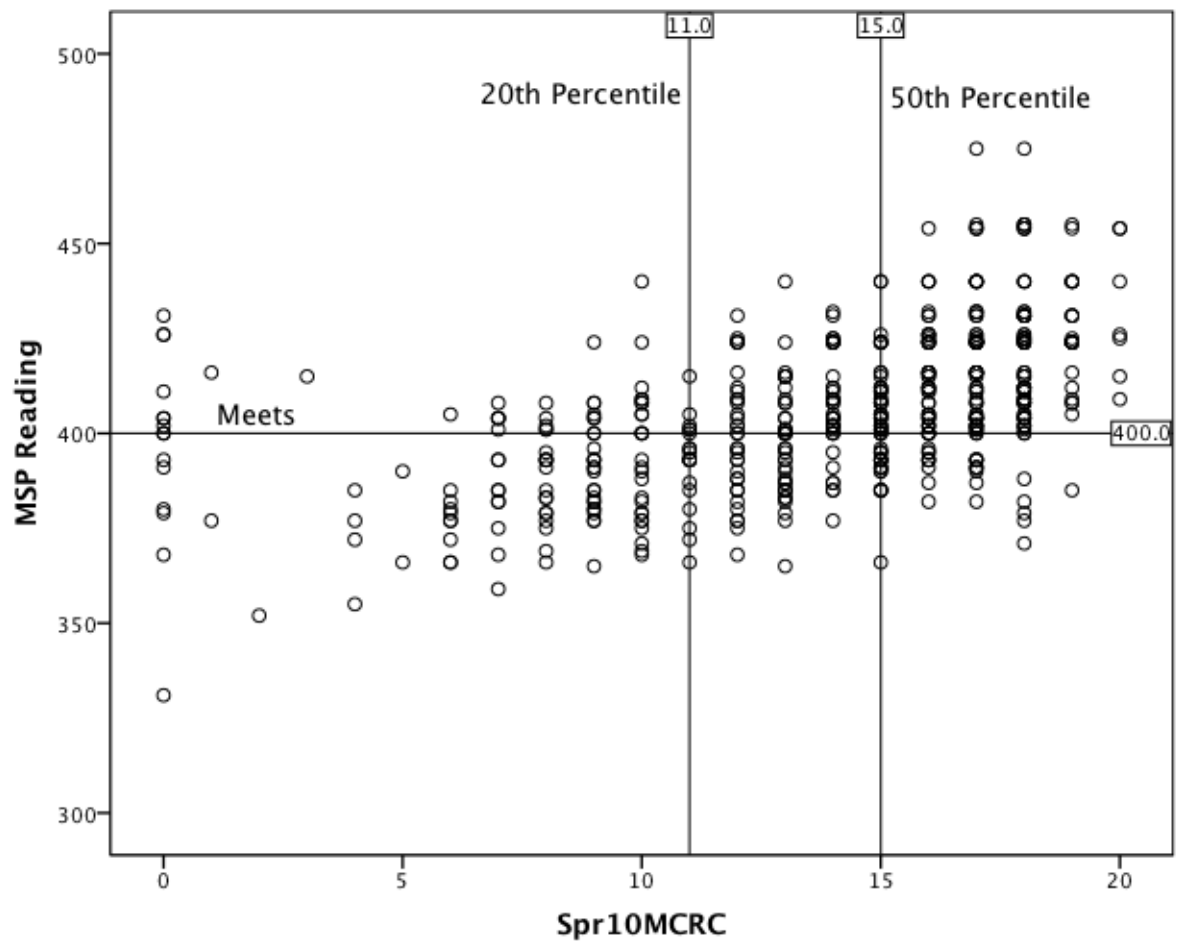


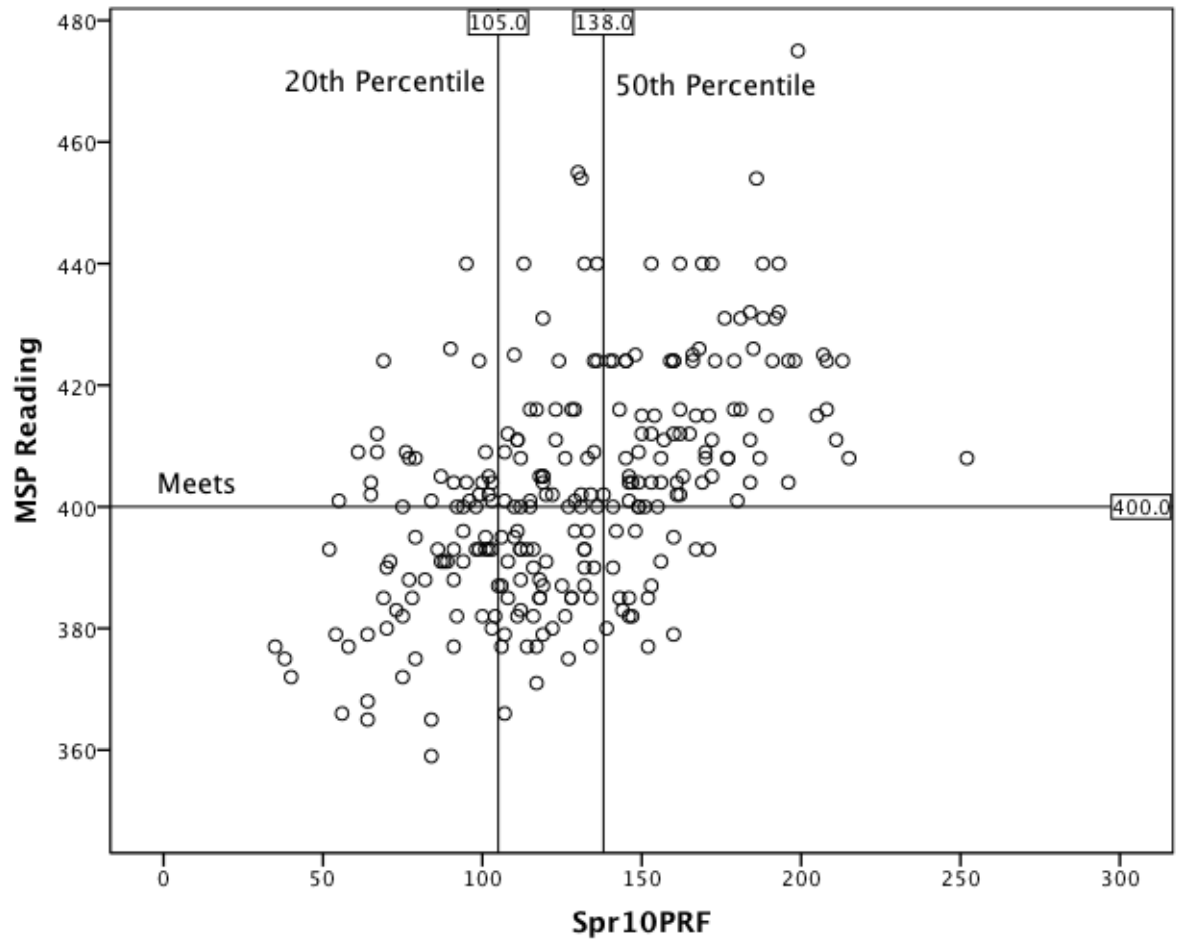
Winter

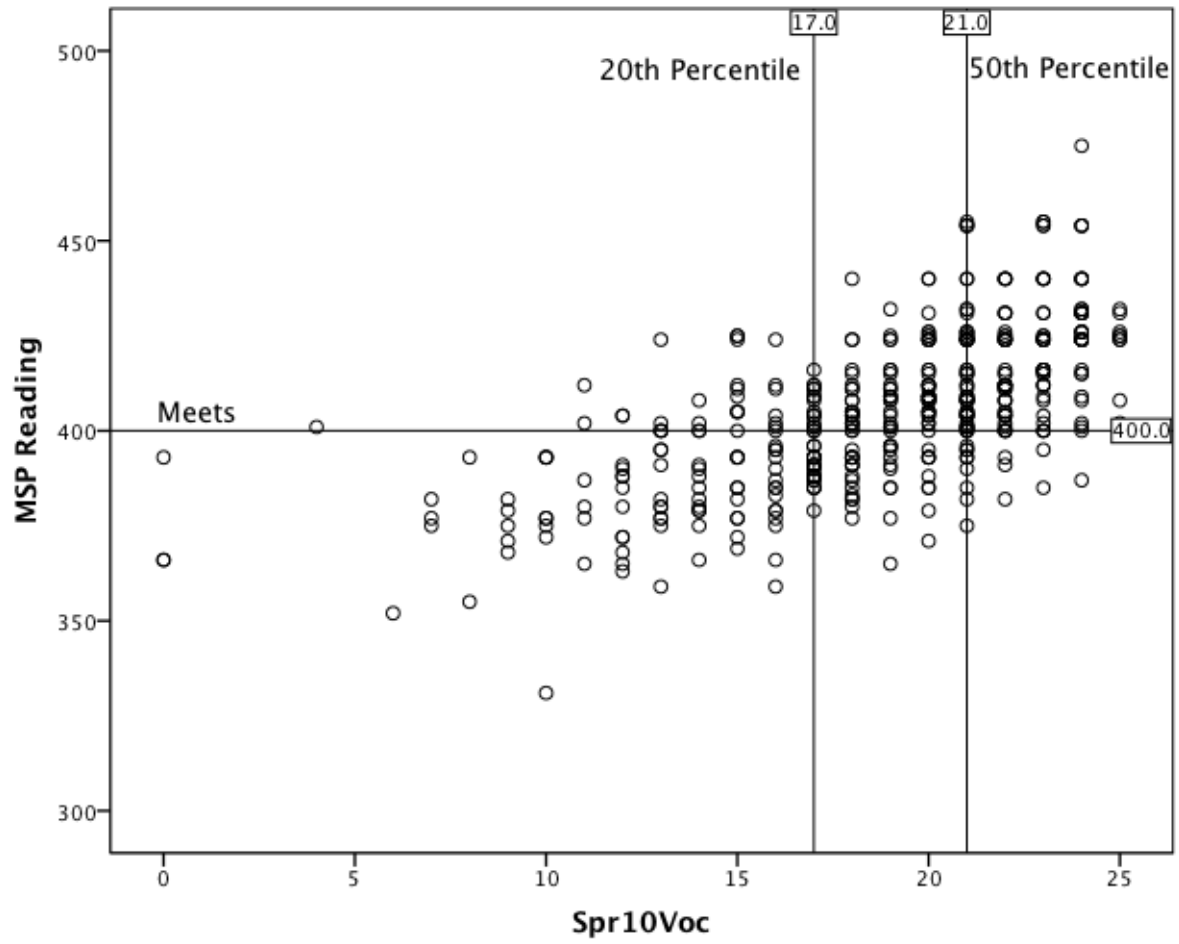




Spring

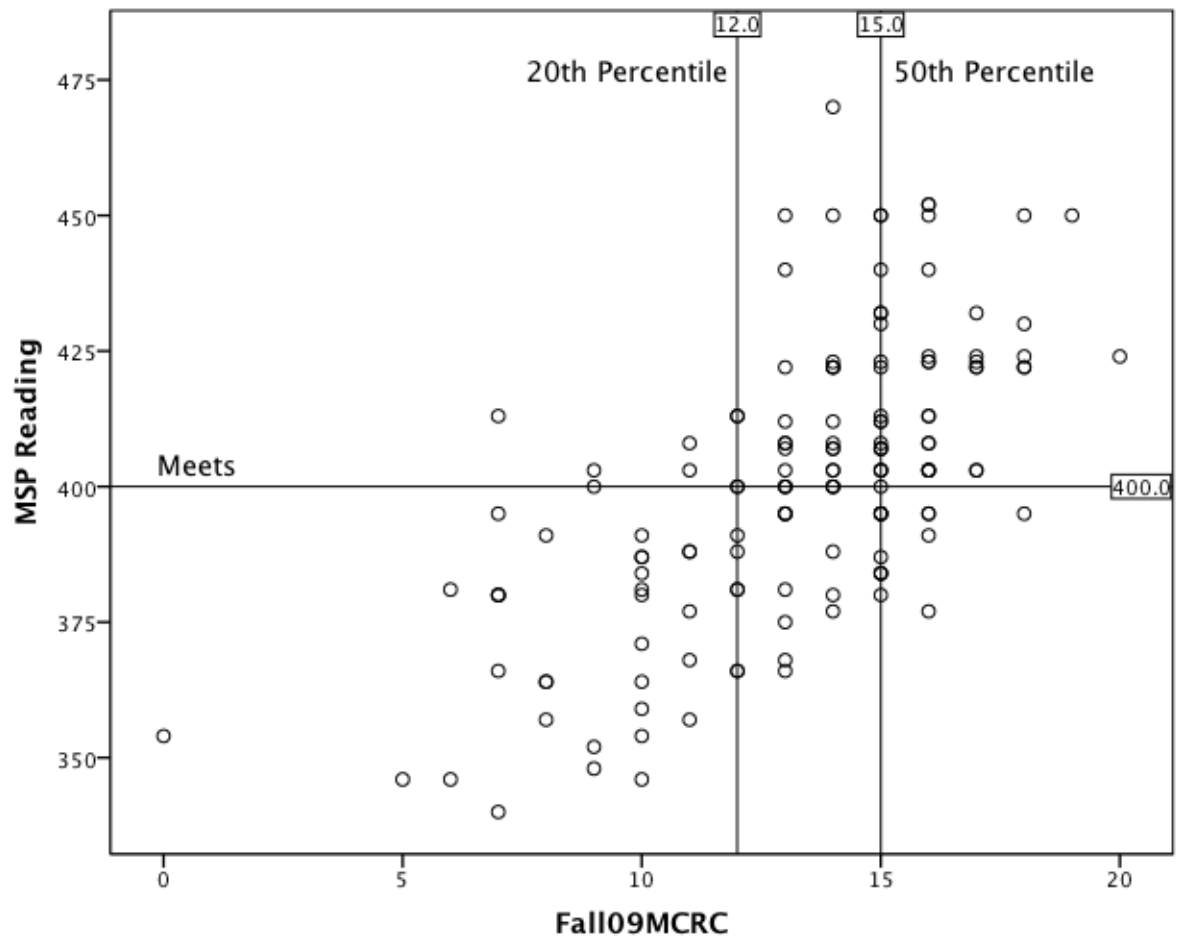


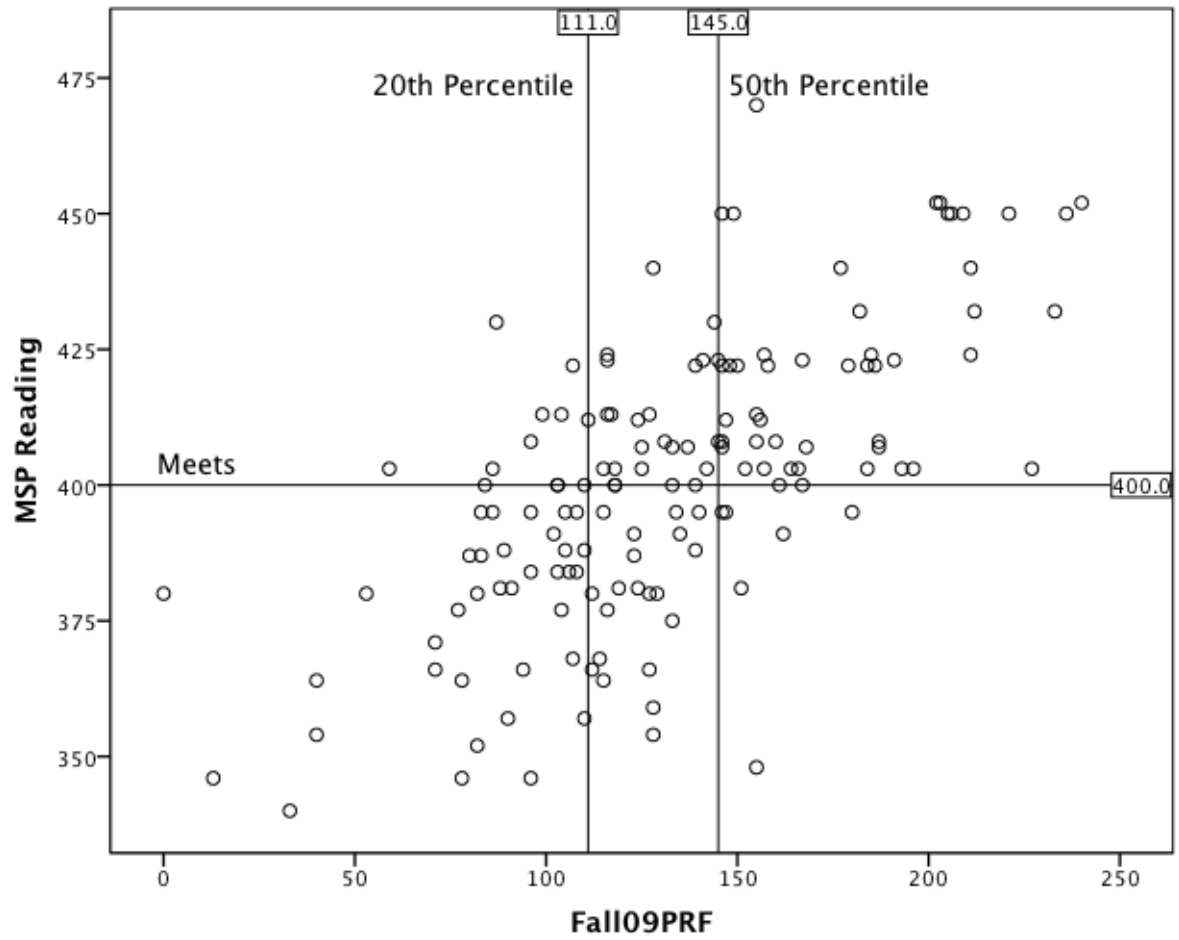


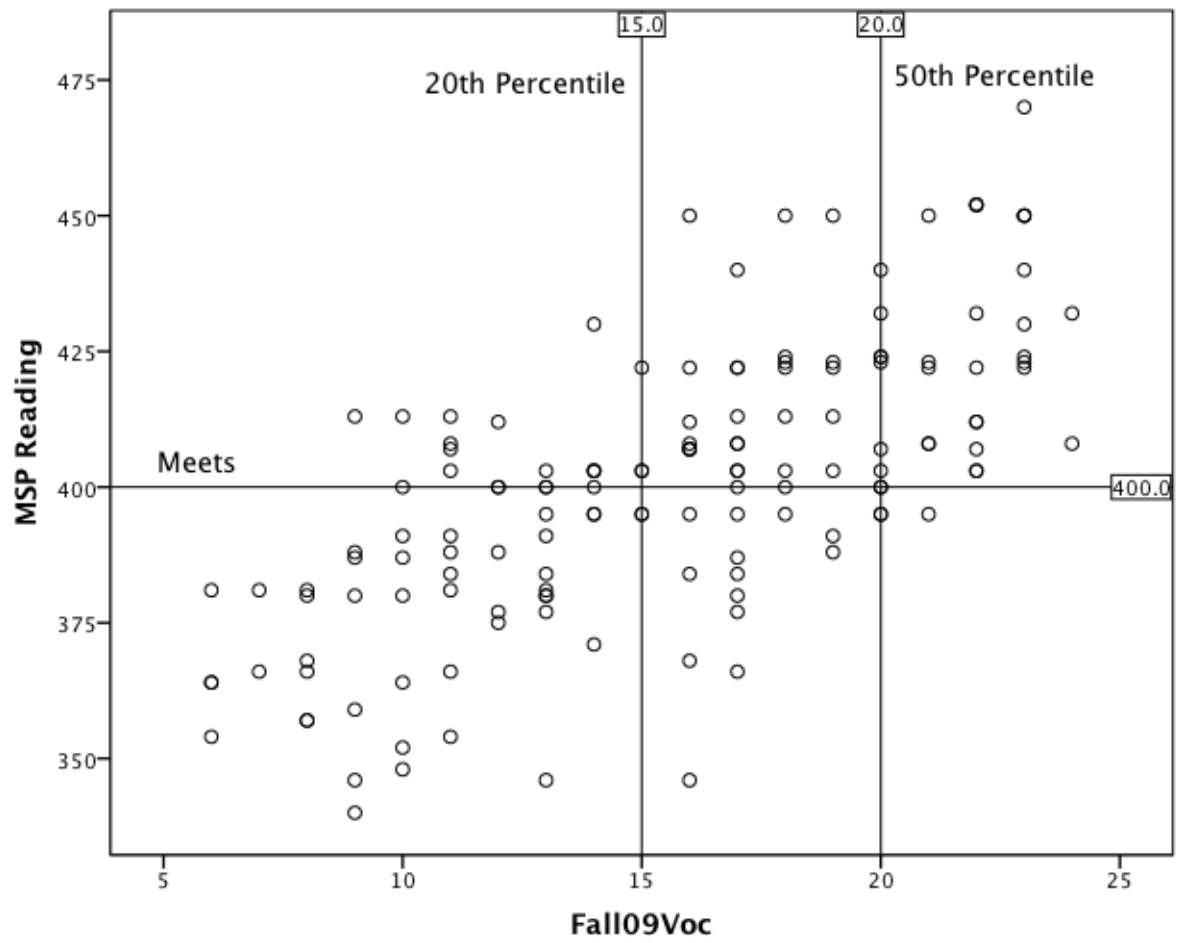


Grade 5

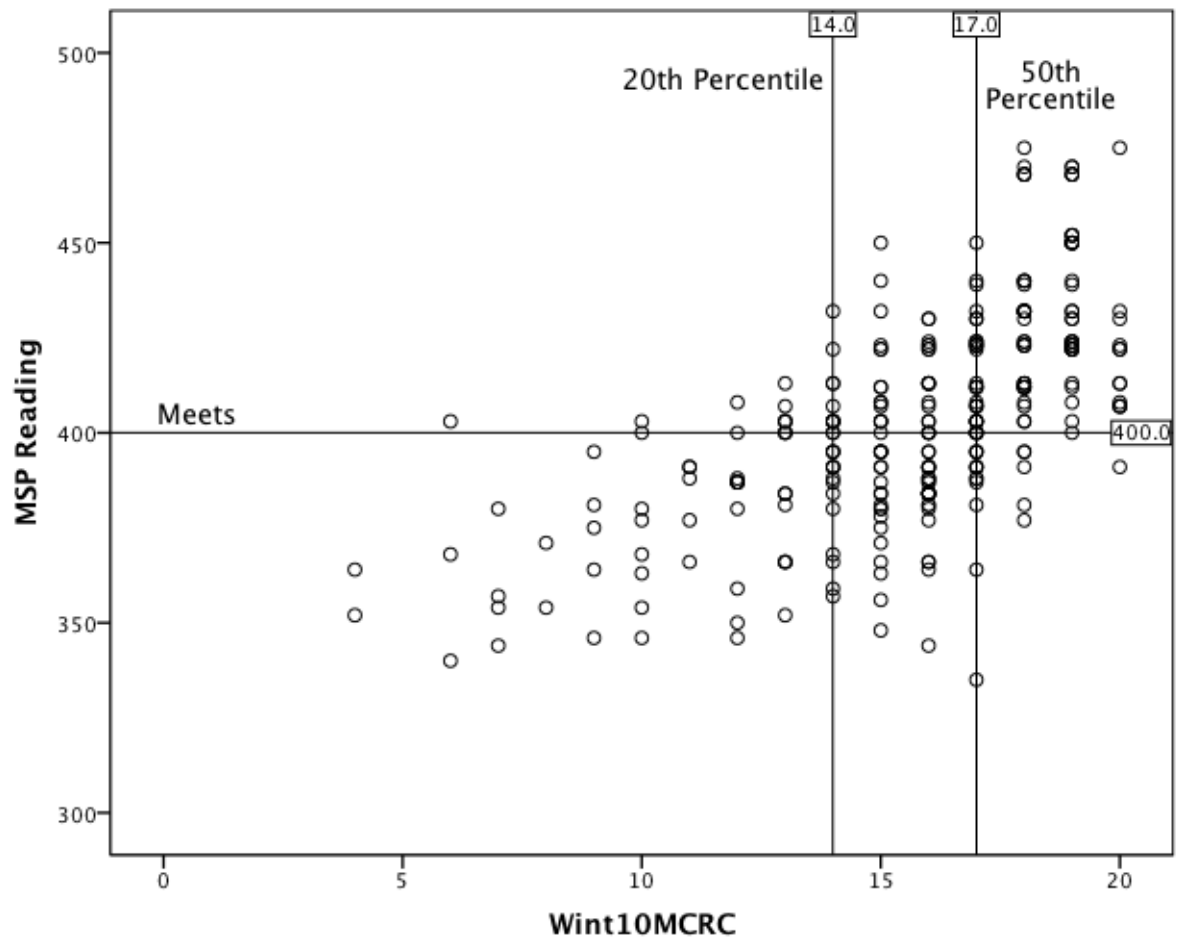
Fall

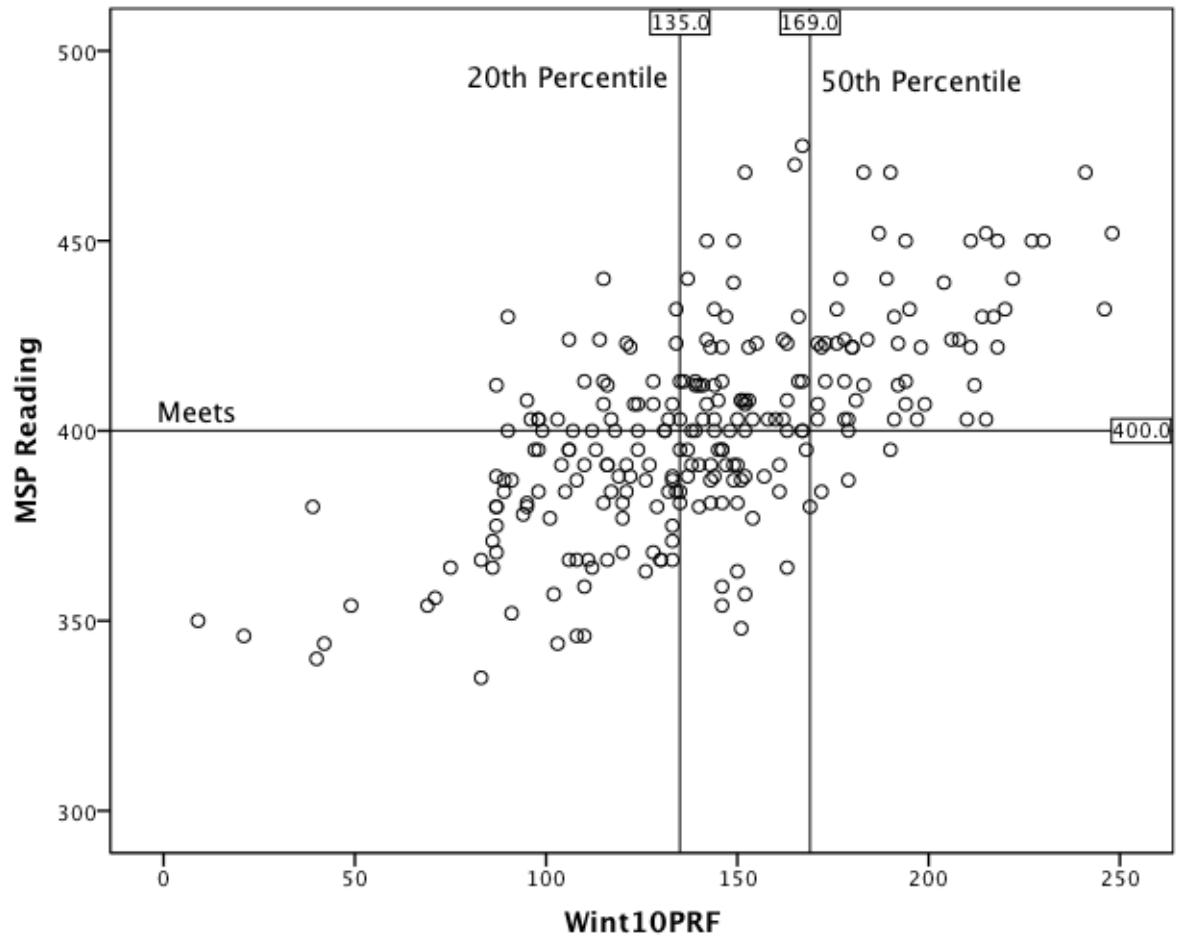




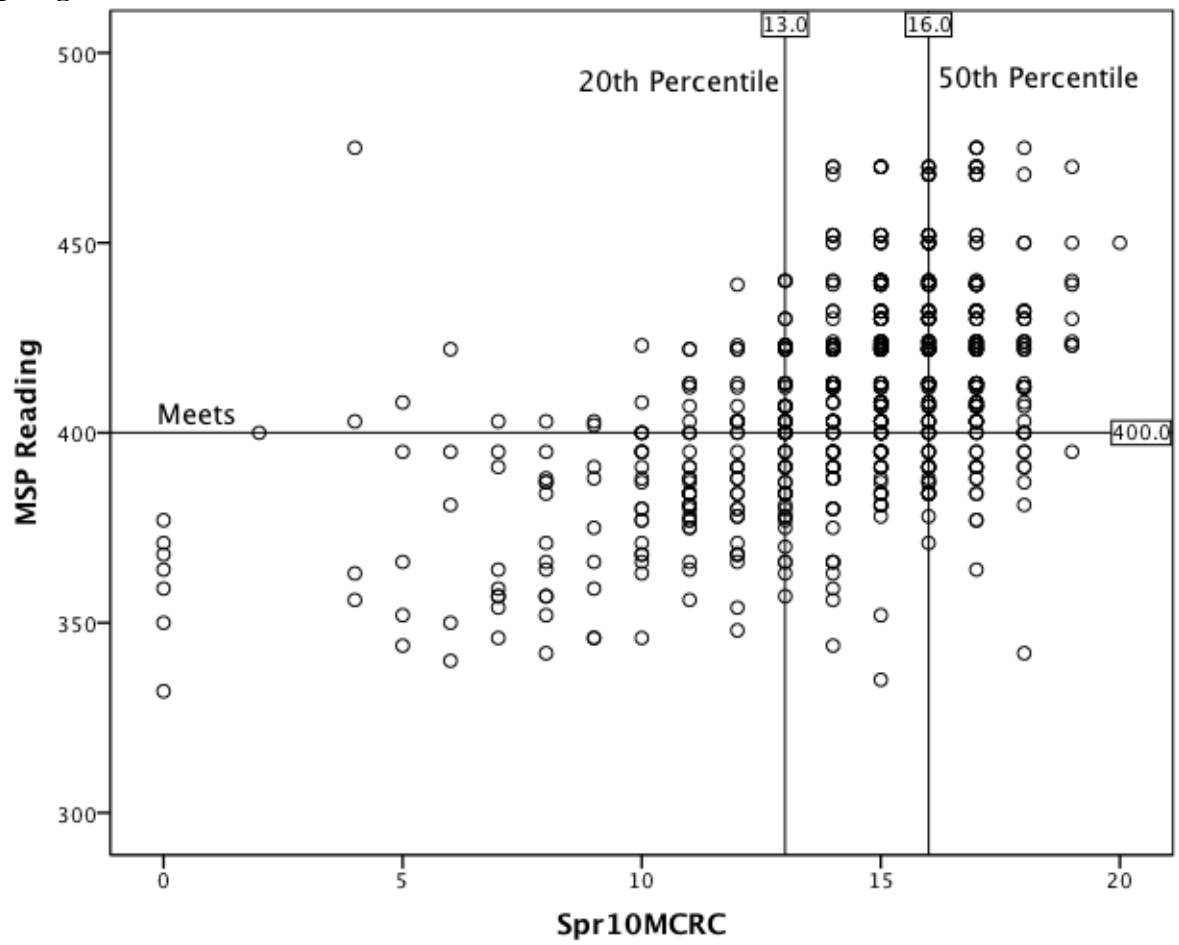


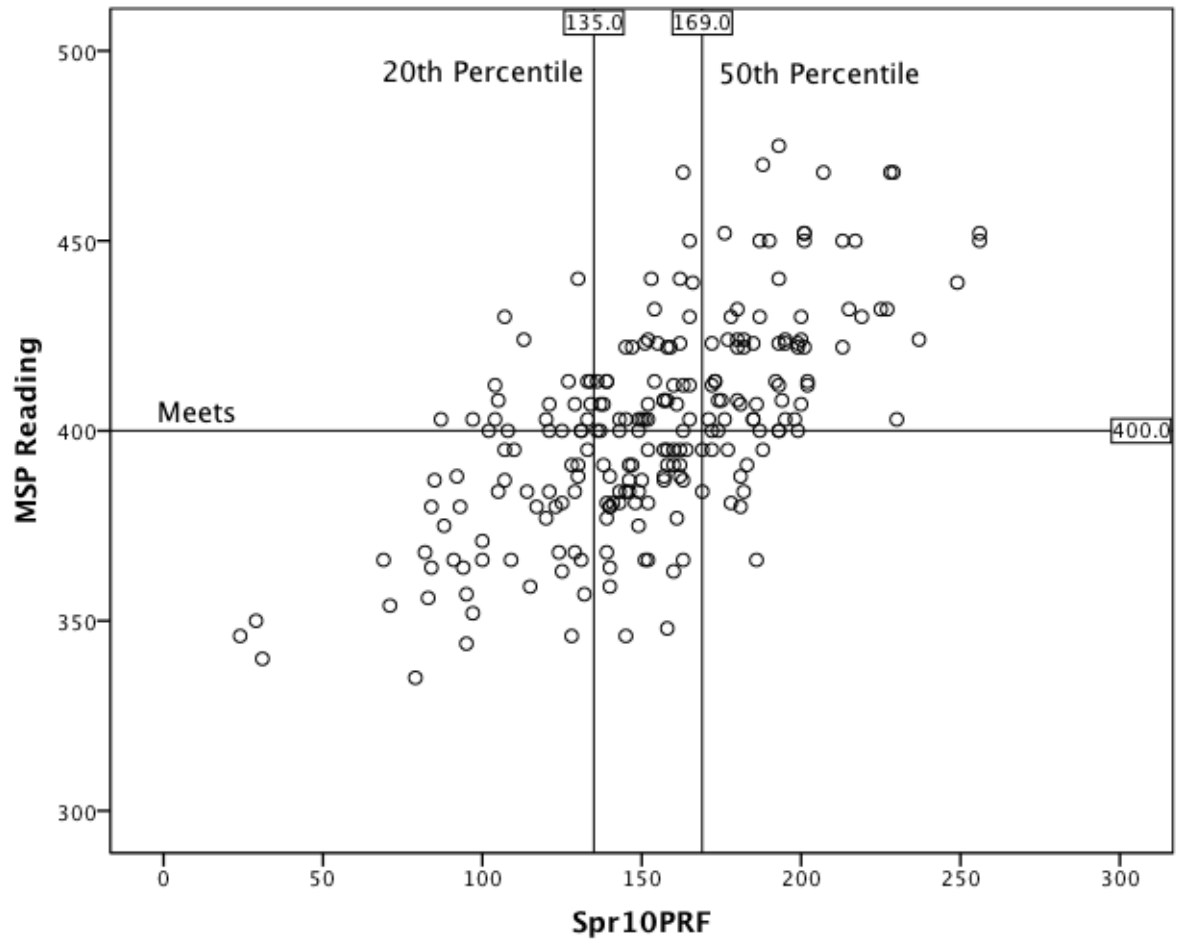
Winter

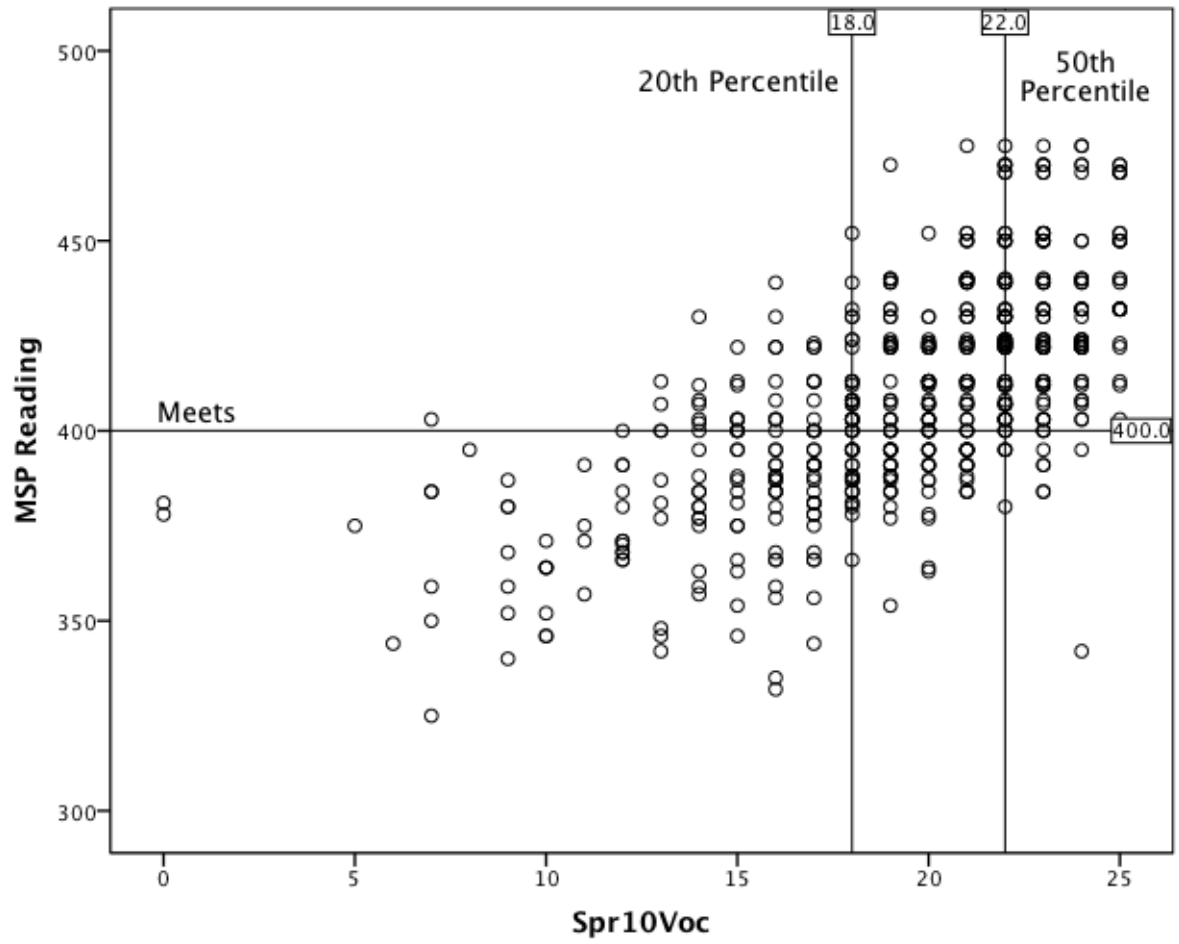




Spring

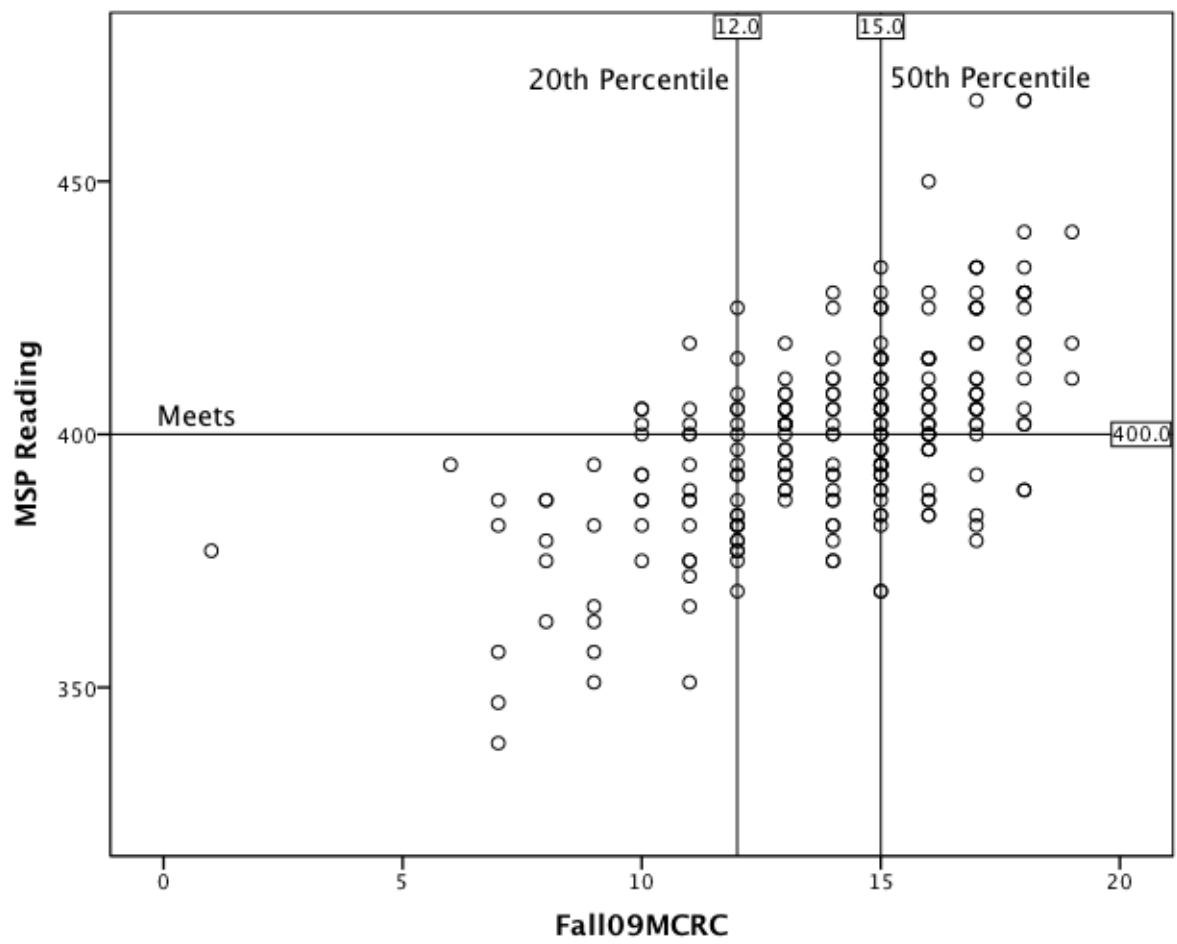


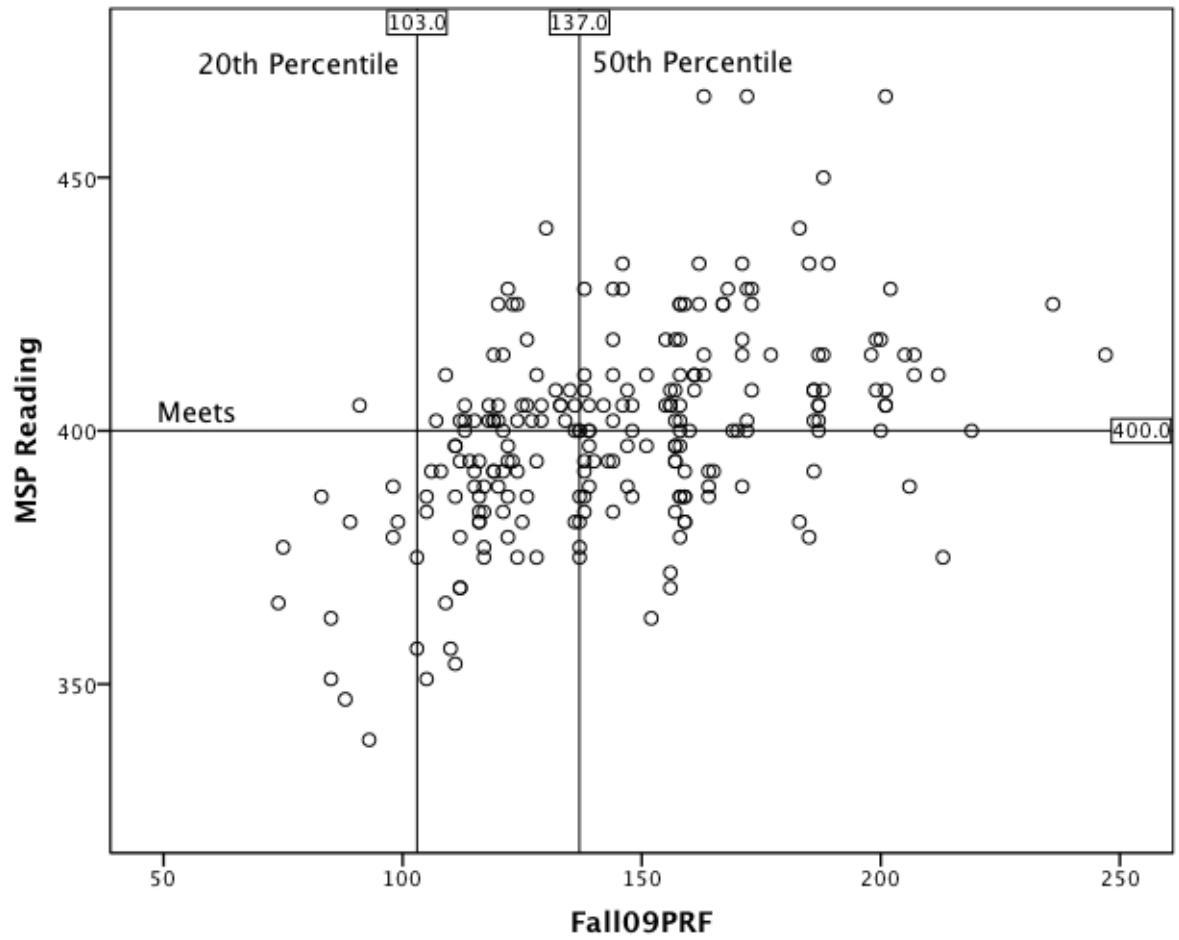


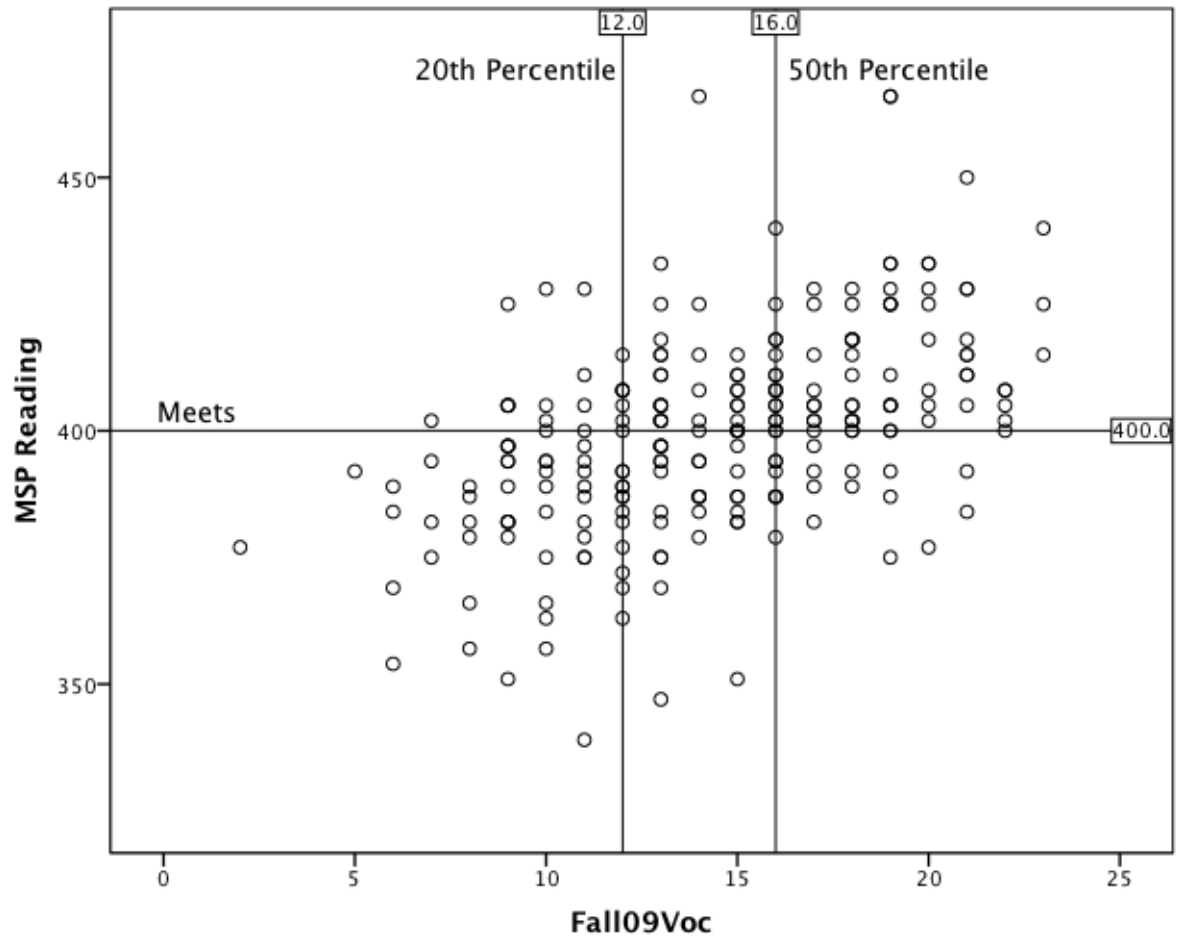


Grade 6

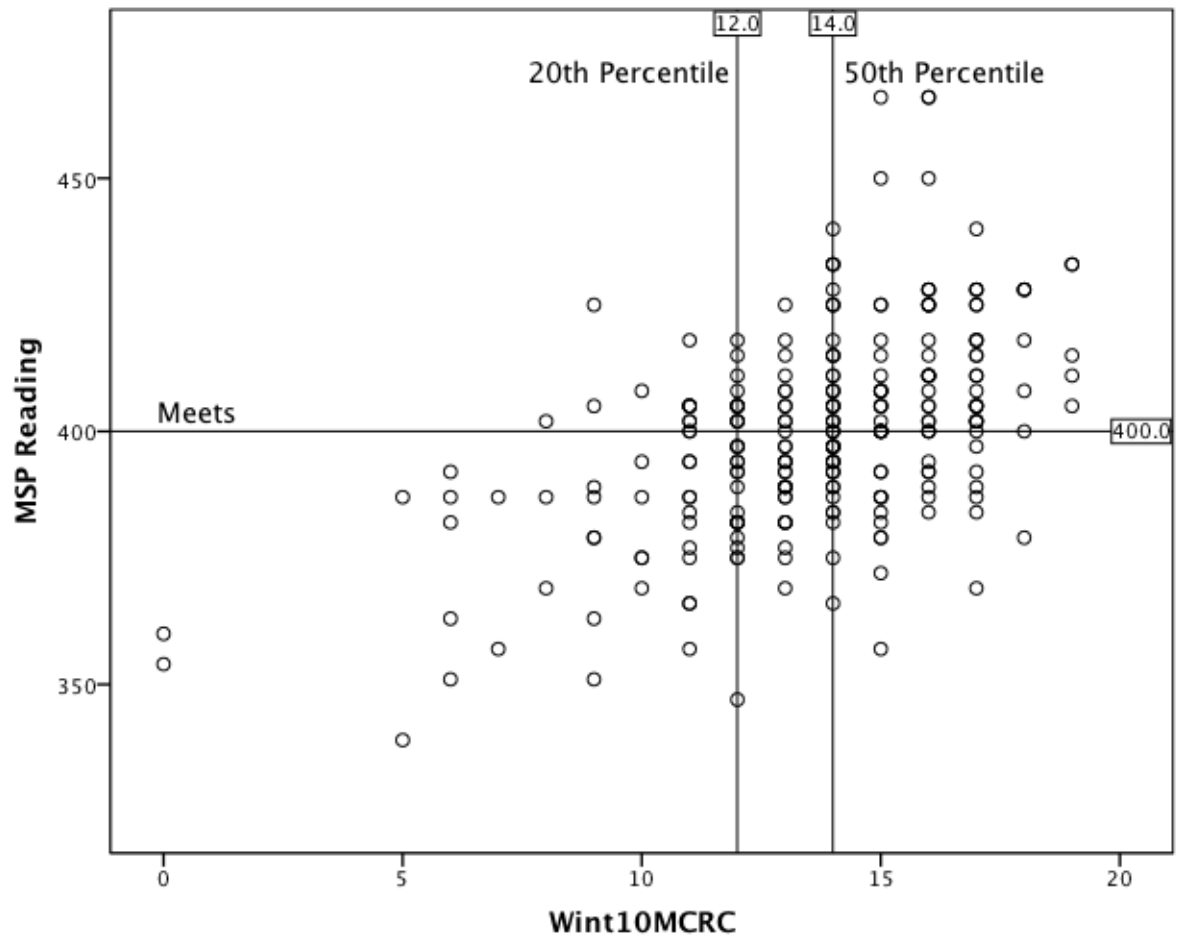
Fall

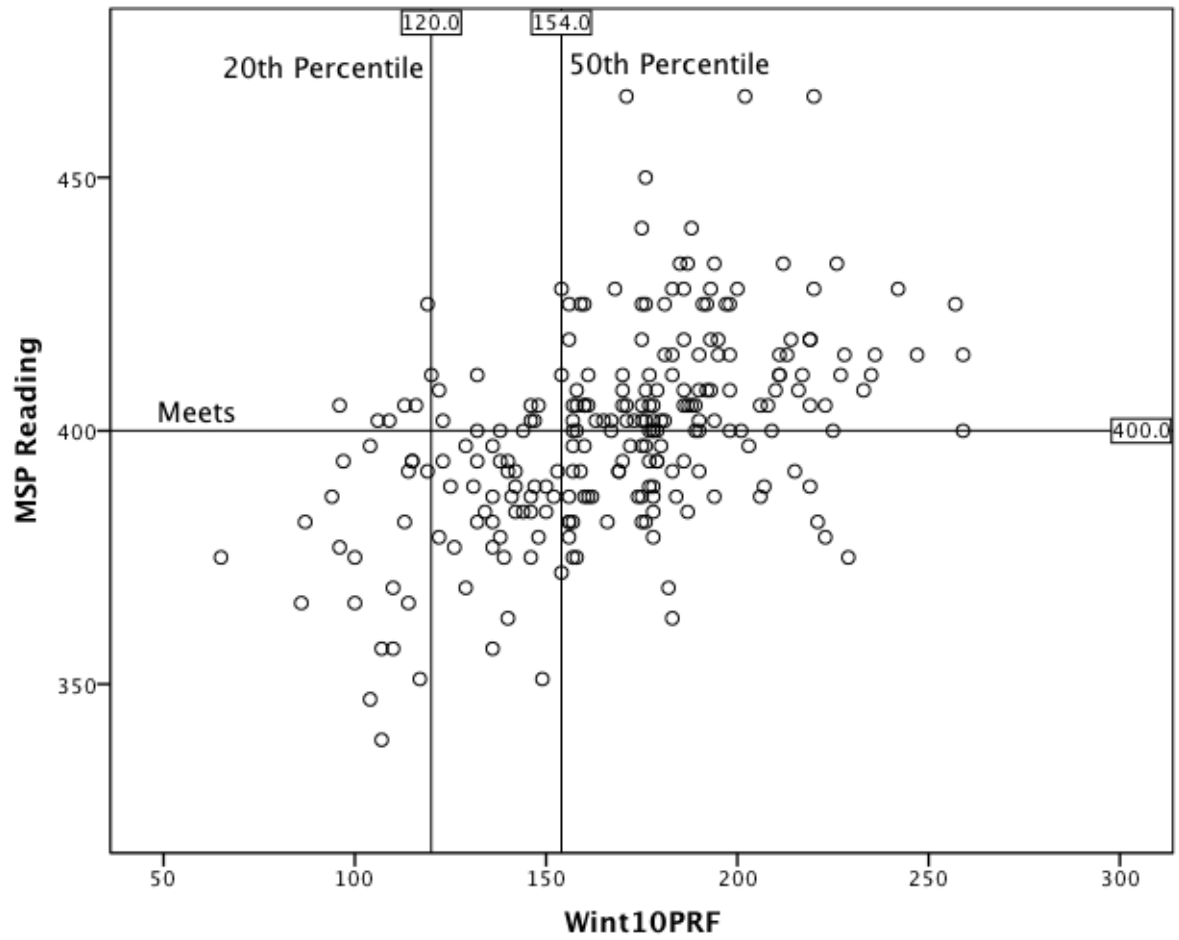




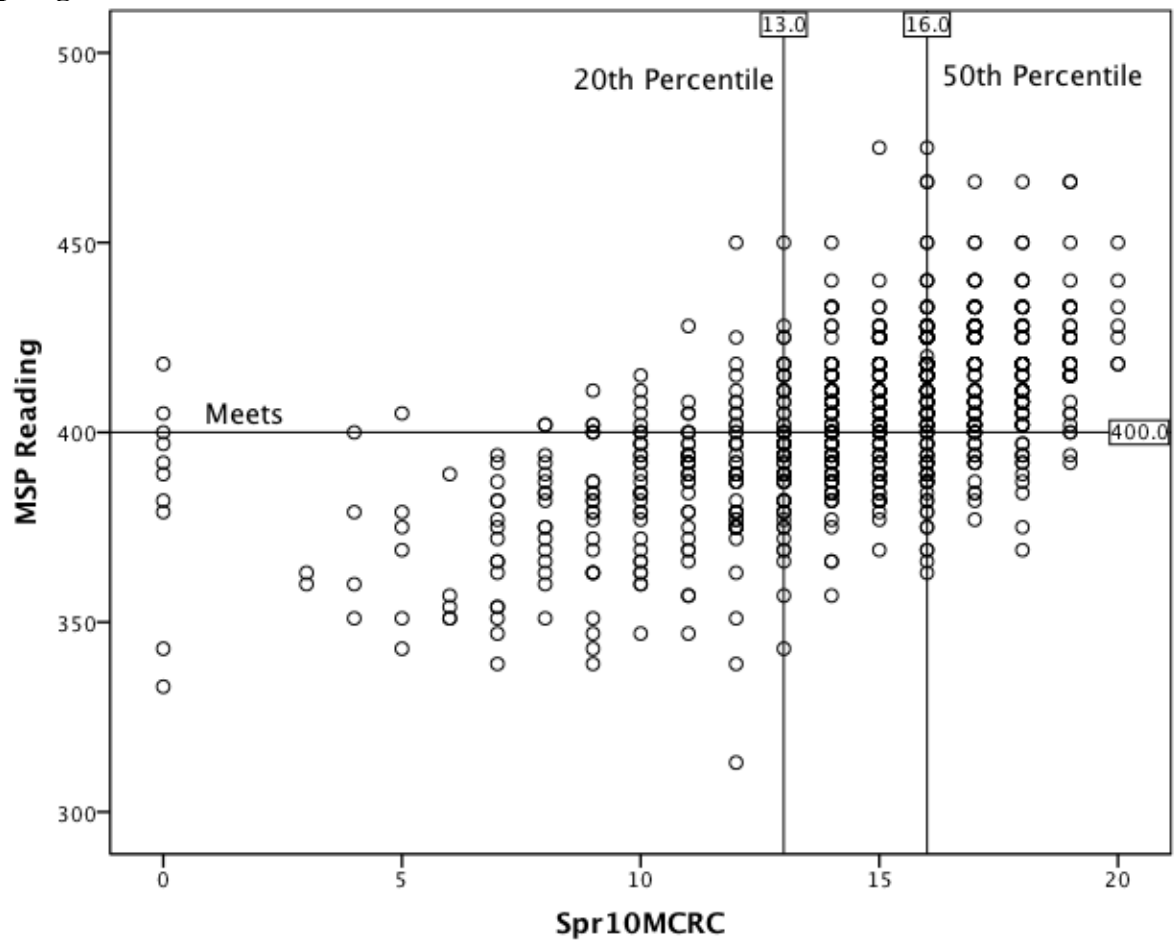


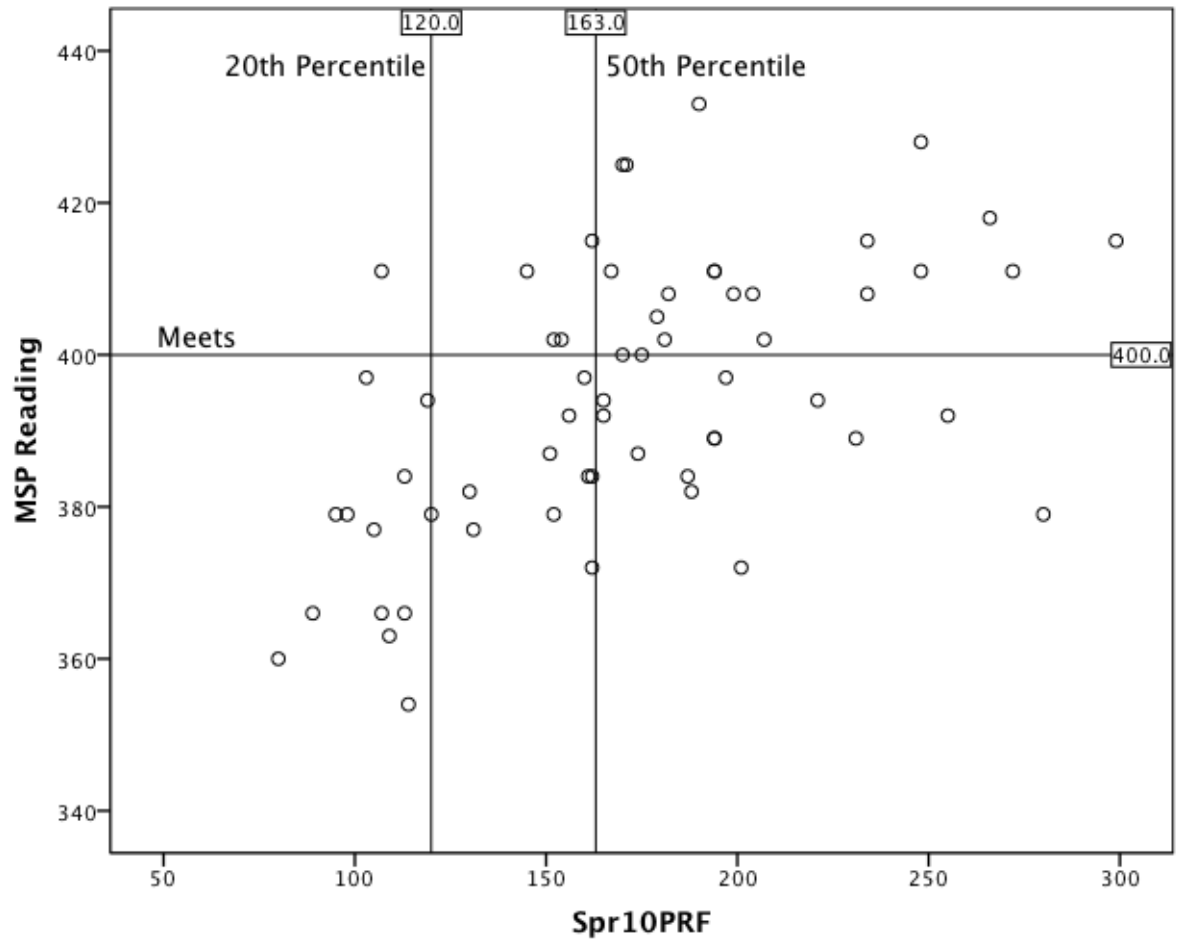
Winter

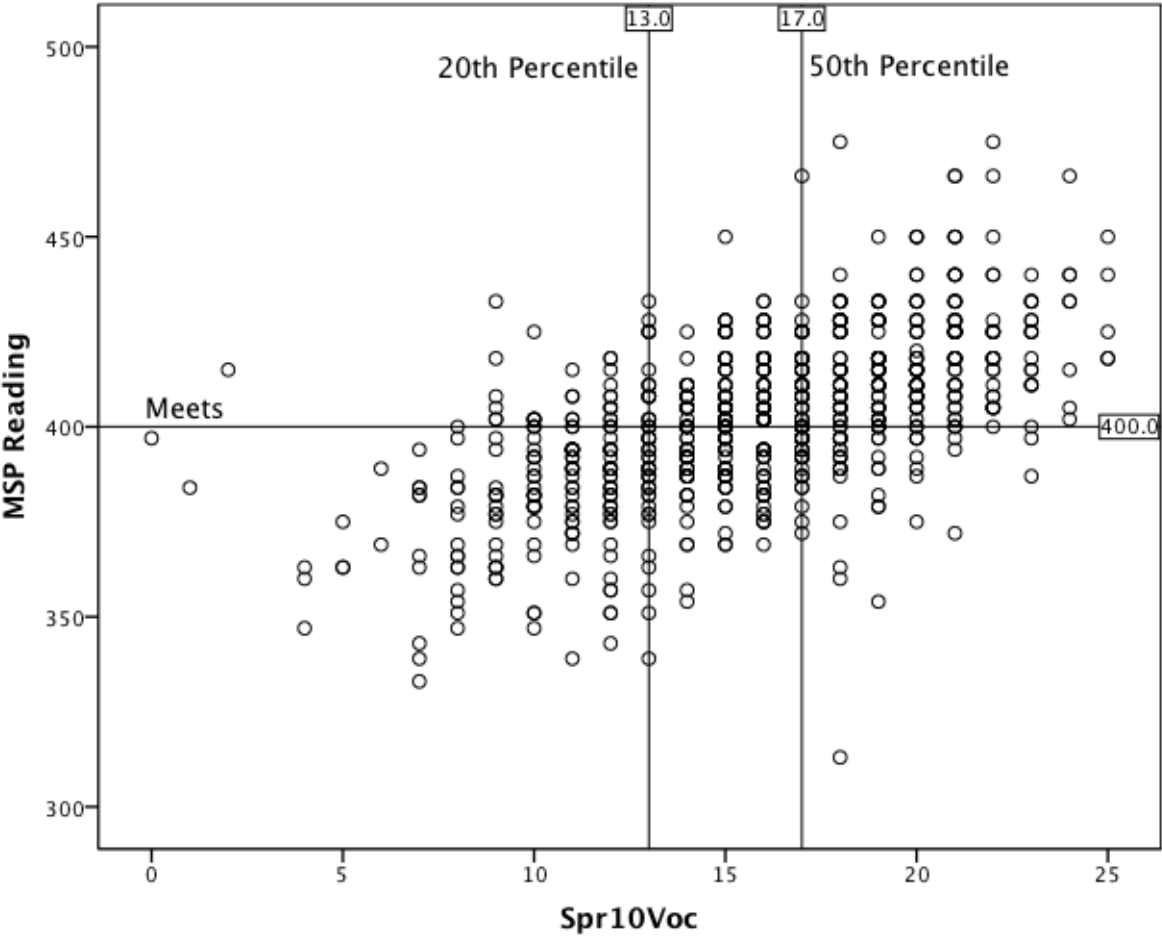




Spring

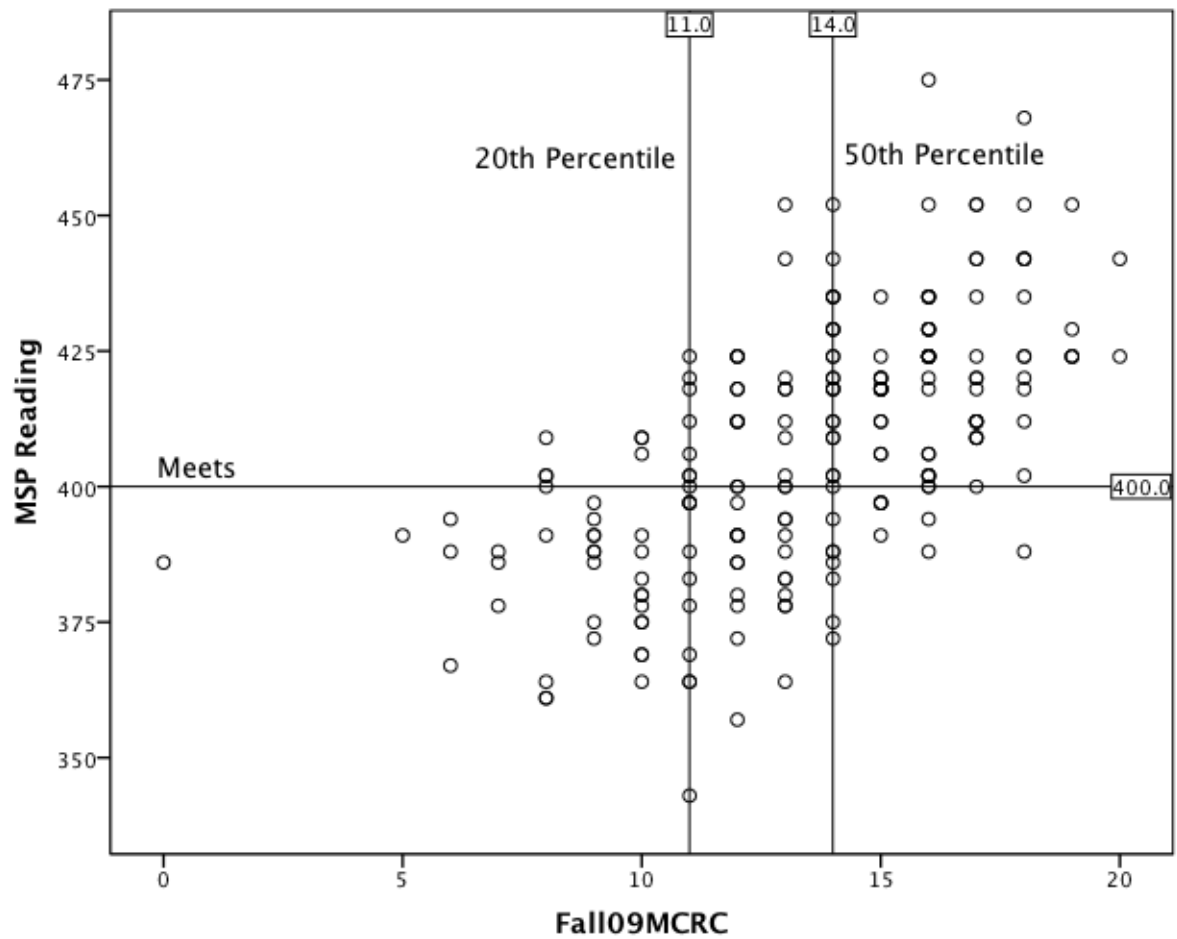


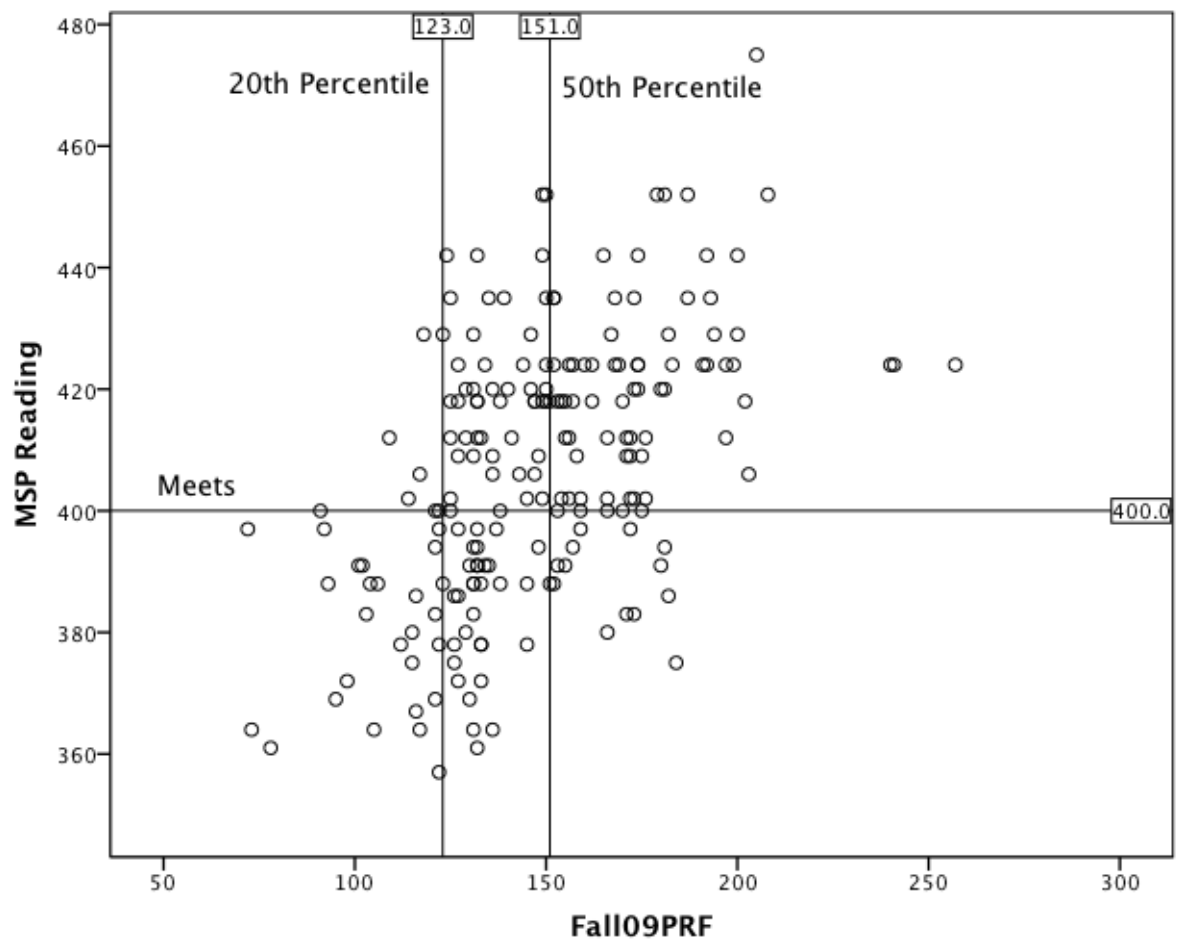


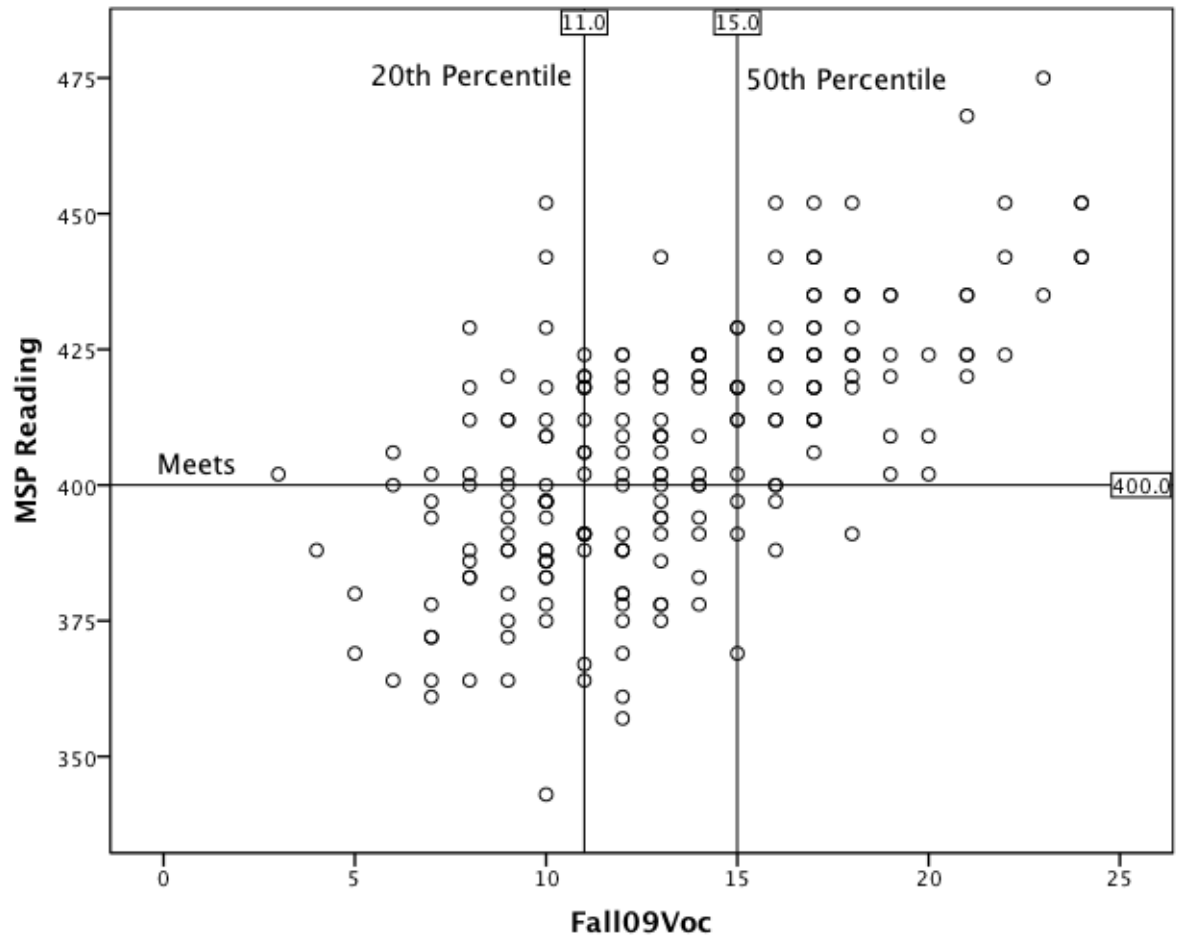


Grade 7

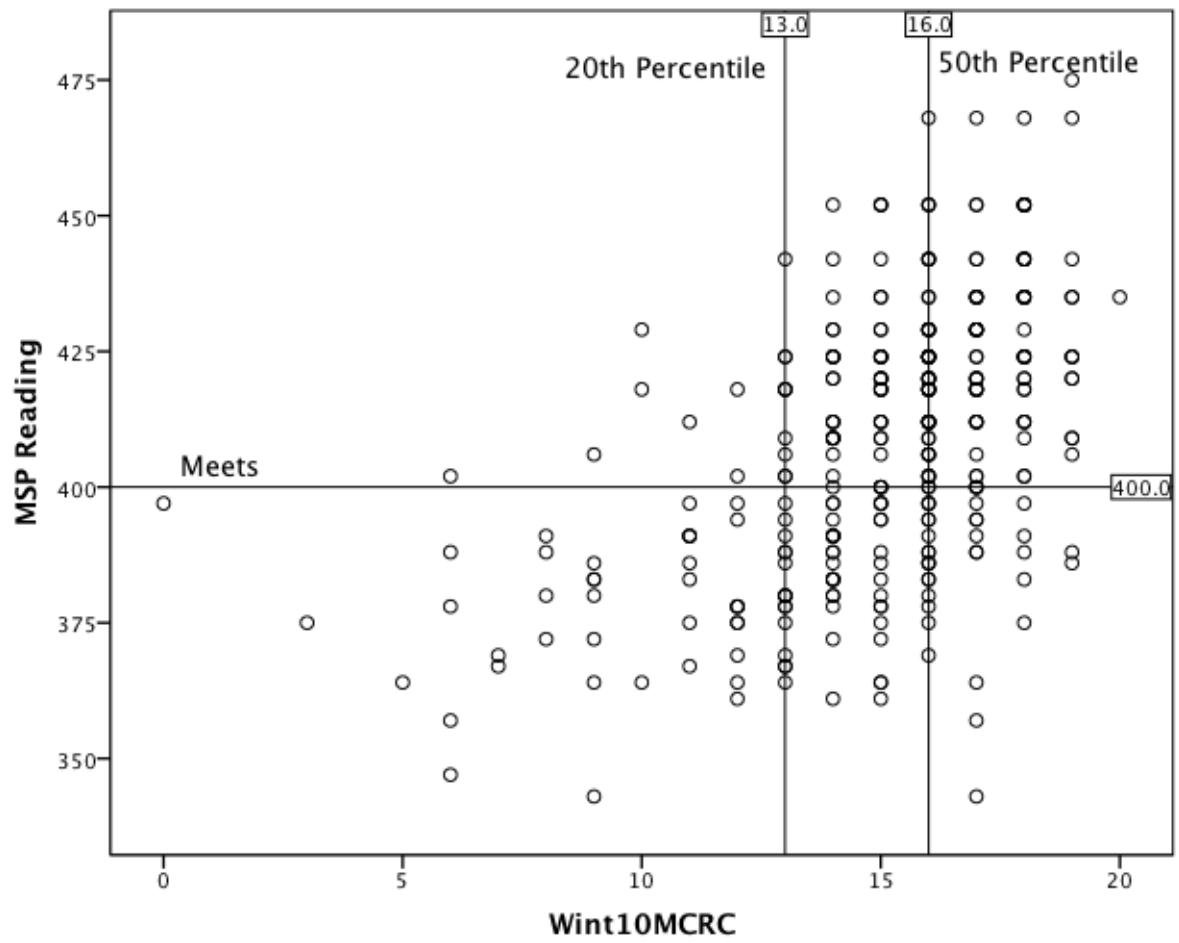
Fall

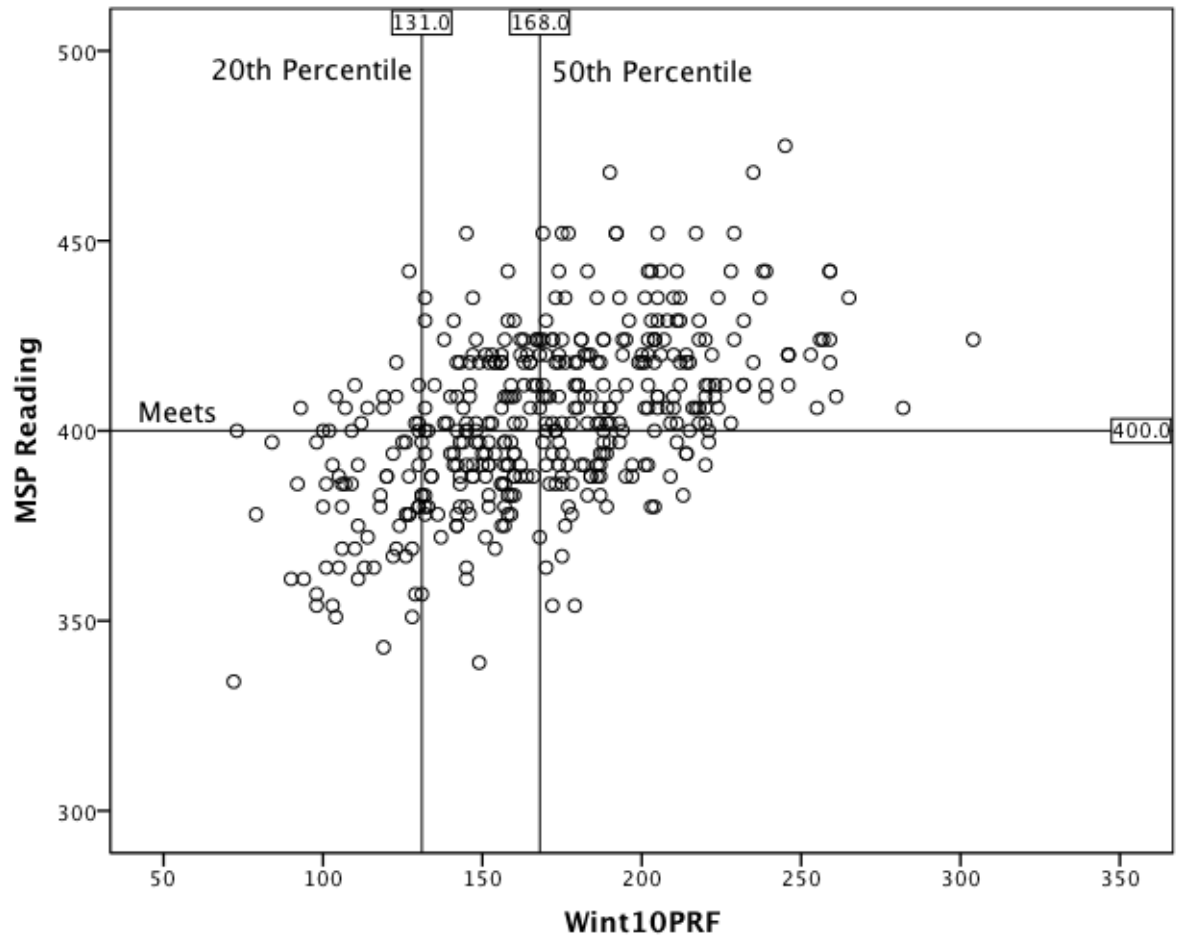




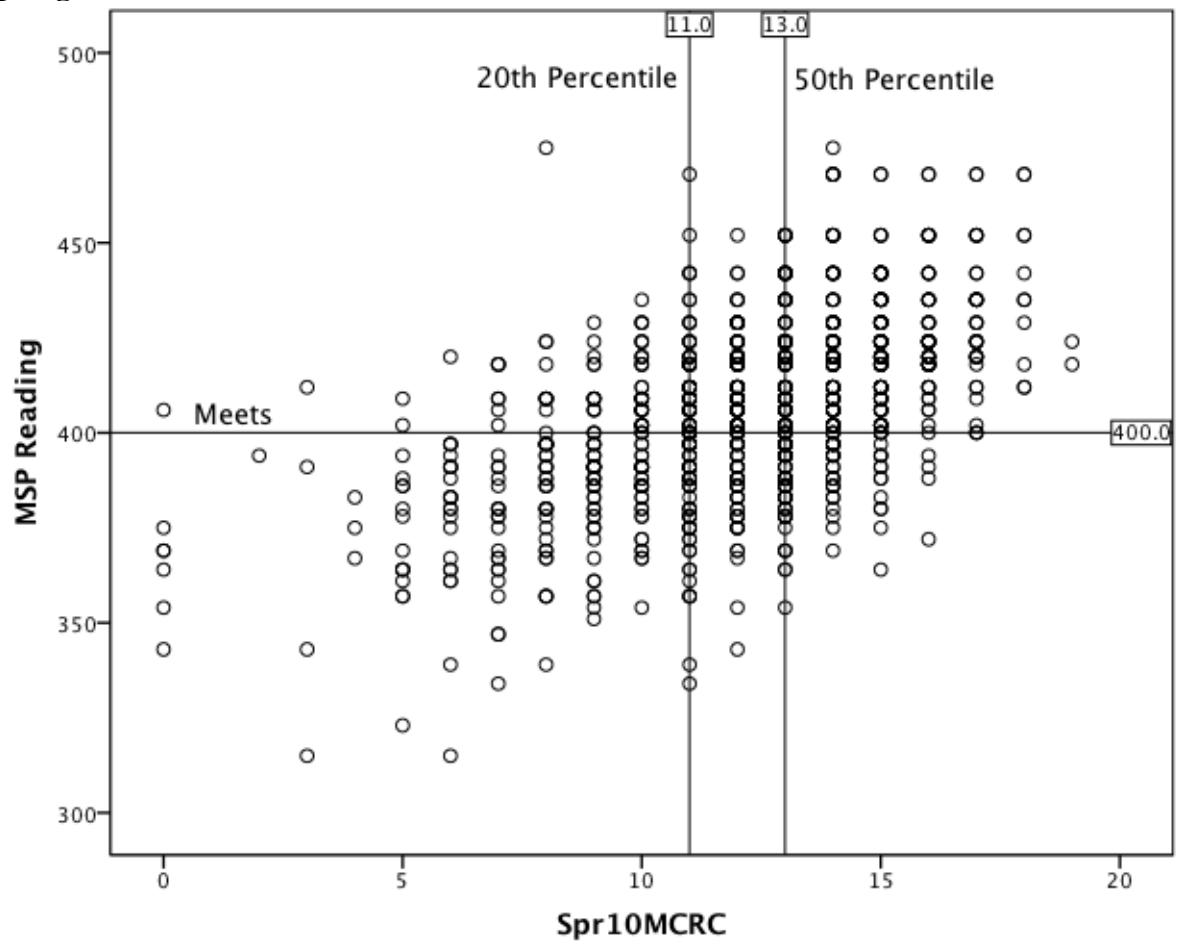


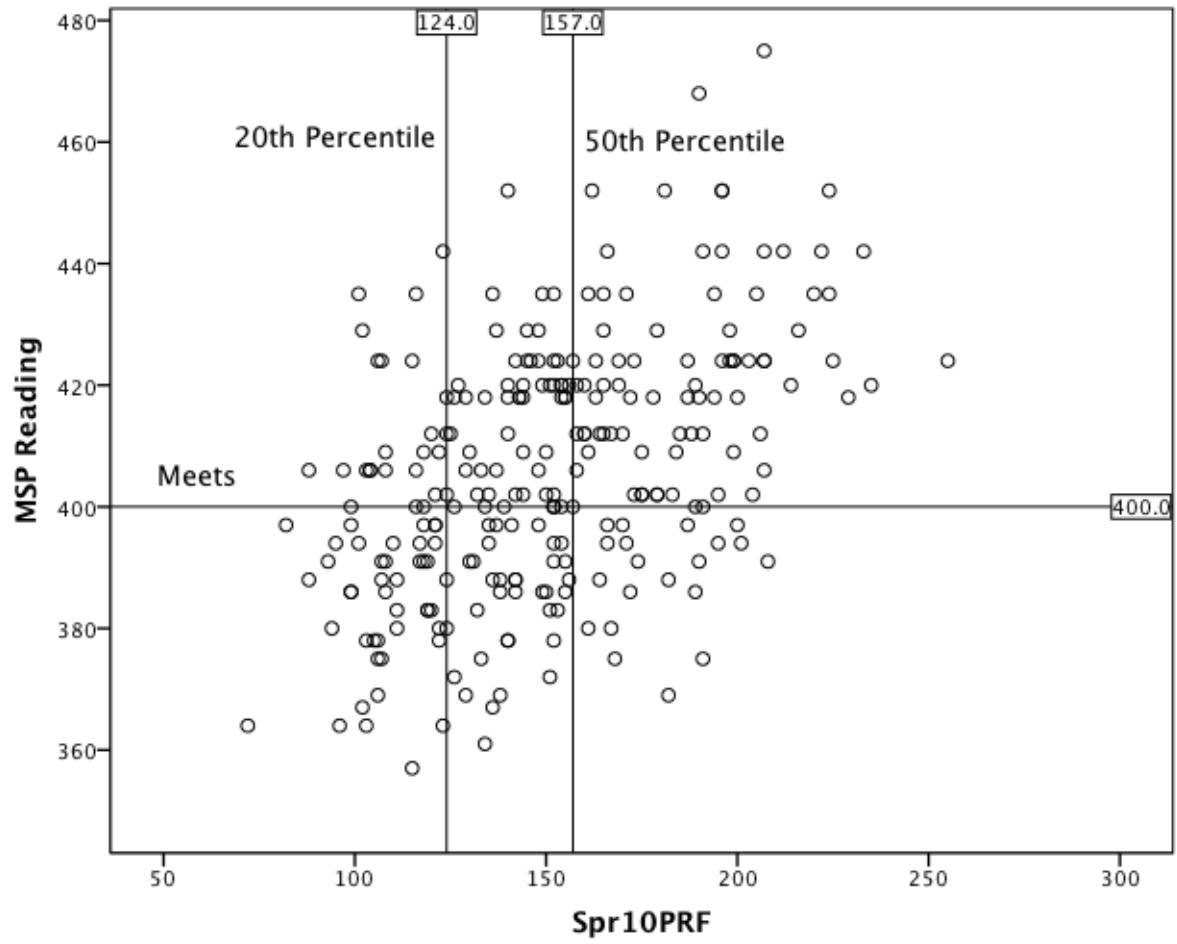
Winter

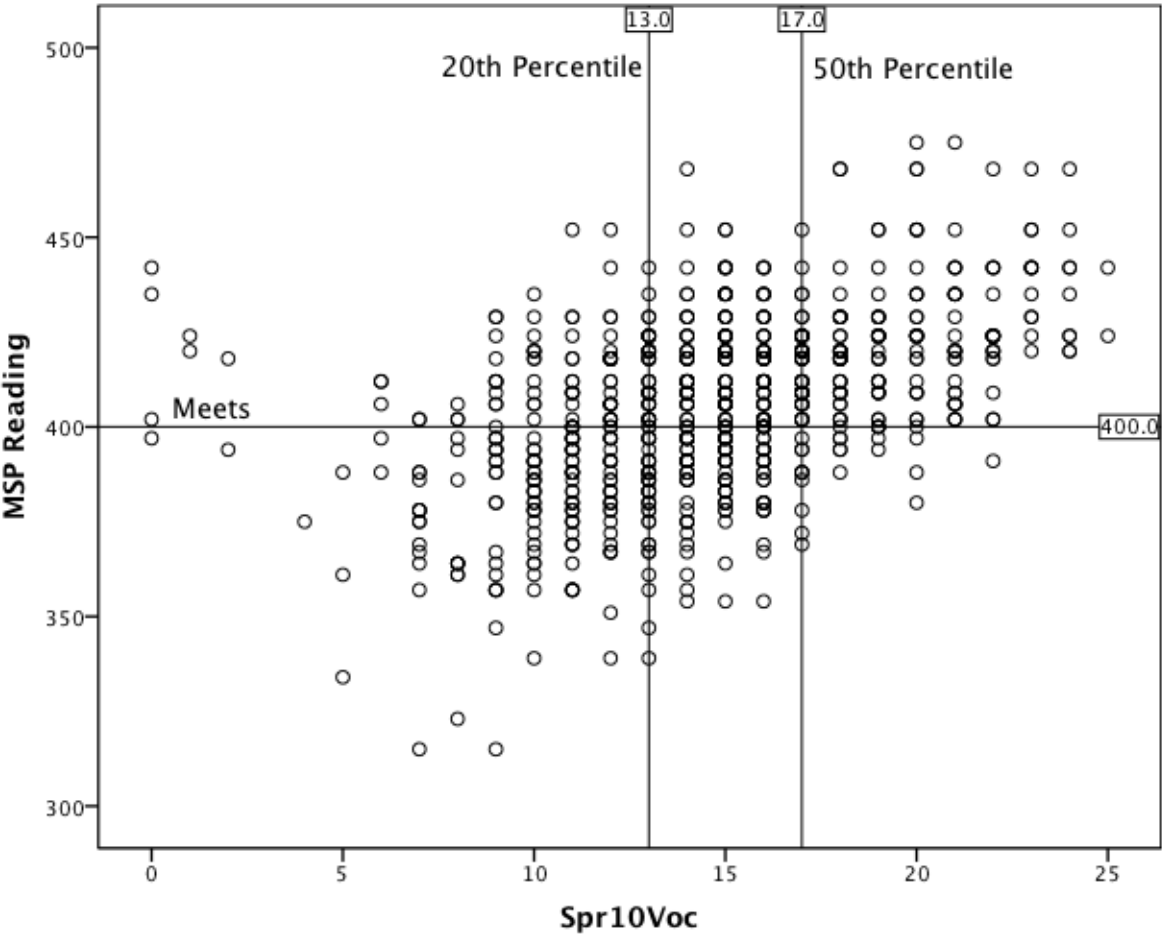




Spring



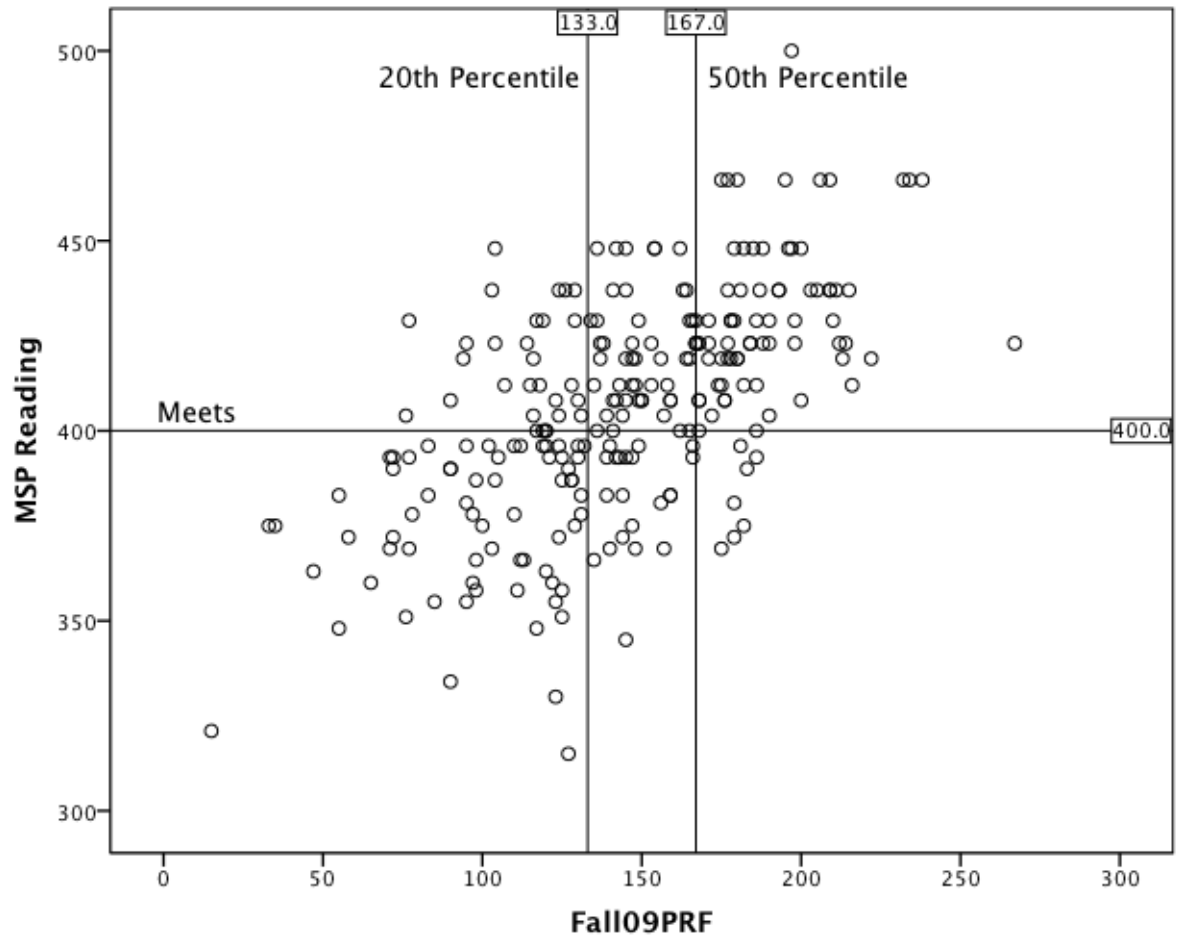




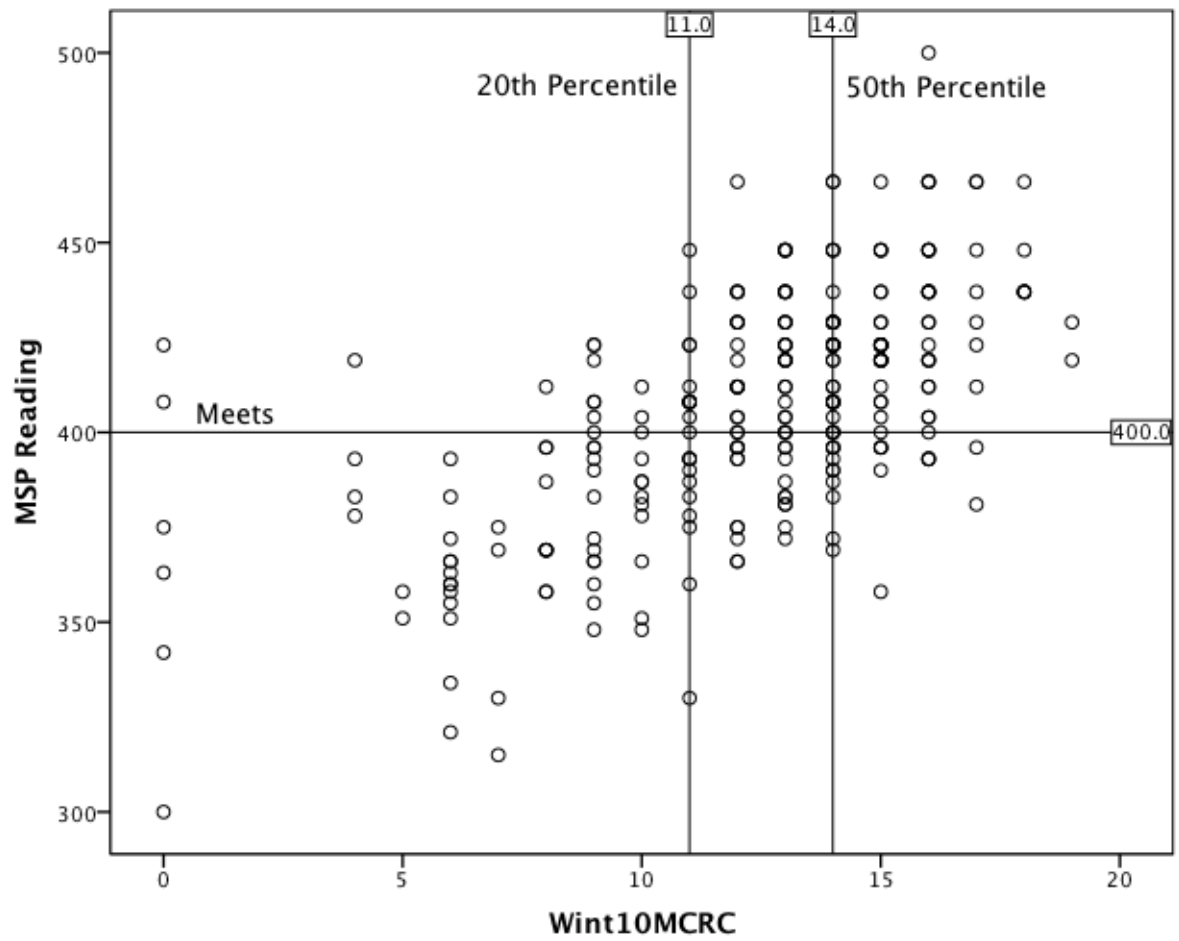
Grade 8

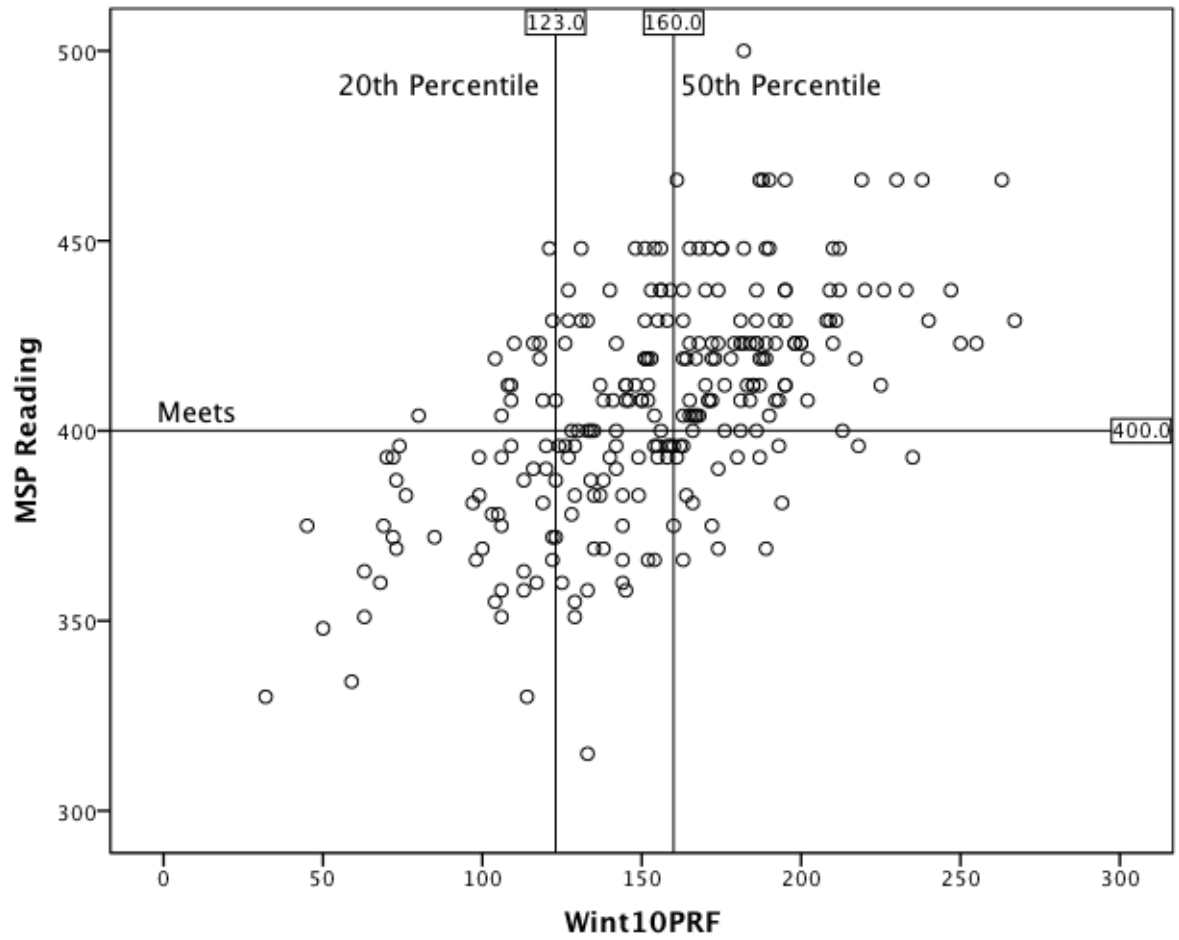
Fall

Note. No valid cases for Fall 09 MCRC or Fall 09 Voc.



Winter





Spring

